GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4378
ANSWERED ON 27.03.2025

FLUE GAS DESULFURIZATION SYSTEMS IN THERMAL POWER PLANTS

4378. DR. PRASHANT YADAORAO PADOLE:

Will the Minister of POWER
be pleased to state:

(a) the current status of the installation of Flue Gas Desulfurization (FGD) systems in thermal power plants across the country including the number of plants with completed installations;

(b) the timeline set for the completion of FGD installations to ensure compliance with emission control standards mandated by the environmental regulations;

(c) the details of the challenges faced in the installation process, such as financial constraints, technical issues or delays along with the measures being taken by the Government to address these challenges; and

(d) the steps taken/being taken by the Government to enforce the mandatory adherence to FGD installation deadlines to meet India's emission reduction commitments?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : Total 537 Units [2,04,160 Mega Watt (MW)] have been identified for installation of Flue Gas Desulphurization (FGDs) in Thermal Power Plants (TPPs). Out of these, FGD installation has been completed in 49 Units (25,590 MW), contracts awarded / under implementation in 211 Units (91,880 MW), 180 Units (58,997 MW) are under various stages of tendering process and 97 Units (27,693 MW) are under pre-tendering process.

(b) to (d) : Ministry of Environment Forest & Climate Change (MoEF&CC) vide its revised notification dated 30.12.2024 has prescribed the following timelines for TPPs to comply with the SO_2 emission norms:

Sl. No.	Category	Location/Area	Timelines for Compliance (Non-retiring units)	Last date for retirement of units for exemption from compliance
1	Category A	Within 10 km radius of National Capital Region or cities having million plus population	Up to 31st December, 2027	Up to 31st December, 2030
2	Category B	Within 10 km radius of Critically Polluted Areas or Non-attainment cities	Up to 31st December, 2028	
3	Category C	Other than those included in category A and B	Up to 31st December, 2029	

.....2.

In case of non-compliance beyond the specified timelines, MoEF&CC has prescribed the following Environment Compensation on the non-retiring TPPs:

Non-Compliant operation beyond the Timeline	Environmental Compensation (Rs. Per unit electricity generated)
0-180 days	0.20
181-365 days	0.30
366 days and beyond	0.40

Major issues/challenges being faced by TPPs during the implementation of FGD system in thermal power plants are as below:

(i) FGD technology being new to our country, there are at present limited vendors with limited capacity to supply and install FGD components. Vendor capacity for FGD installation is about 16-20 GW per annum (33 to 39 units) in the country and installation time is about 36 to 40 months which has led to mismatch in demand and supply of FGD equipment, causing rising costs and delays.

(ii) India had manufacturing capability of 70% FGD components which has now increased to 80% with the passage of time. However, it still depends on the imports from other countries for technology, critical equipment and skilled manpower.

(iii) The installation of FGD systems is more like a Renovation and Modernization (R&M) project which has distinguished difficulties in terms of conceptualization and design challenges. Standardization could not be done as different sites have different requirements like space constraints, lay-out and orientation etc.

To address the above issues, vendors have been encouraged to enhance their capacity and to maximize the indigenous production of all FGD parts in order to reduce import dependence.

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4386
ANSWERED ON 27.03.2025

FLUCTUATION IN HYDROPOWER GENERATION

4386. SHRI GURMEET SINGH MEET HAYER:

Will the Minister of POWER be pleased to state:

(a) the details of the highest recorded peak power demand and the corresponding peak power shortage in 2024;

(b) the details of the projected peak power demand and potential shortages assessed for 2025 and measures planned to address them;

(c) the manner in which the fluctuations in hydropower generation impacted overall power availability in 2024 and the steps taken/being taken by the Government to mitigate similar challenges in the future; and

(d) the details of the initiatives that are in place to enhance the integration of renewable energy into the national grid and specific capacity addition targets set for 2025?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a): All India Peak Demand for FY 2024-25 (upto February, 2025) was 2,49,856 MW which occurred on 30.05.2024. This peak demand was successfully met with only a marginal gap of 2 MW.

(b): There is adequate availability of power in the country. Present installed generation capacity of the country is 470 GW. Government of India has addressed the critical issue of power deficiency by adding 238 GW of generation capacity since April, 2014 transforming the country from power deficit to power sufficient. Further, addition of 2,01,088 circuit kilometer (ckm) of Transmission lines, 7,78,017 MVA of Transformation capacity and 82,790 MW of Inter-Regional capacity has been done since 2014 with capability of transferring 1,18,740 MW from one corner of the country to another.

As per mid-term review of 20th Electric Power Survey, the All India Peak Demand of the country is expected to be 277 GW in 2025-26. The country is confident to meet this projected demand with optimal usage of existing and under construction capacities.

.....2.

Further, Government of India has taken following measures to ensure uninterrupted and reliable power supply in the country:

(i) All the GENCOs including IPPs and Central generating stations have been advised to generate and maintain full availability on daily basis excluding the period of planned maintenance or forced outage.

(ii) Hydro based generation is being scheduled in a manner so as to conserve water for meeting demand during peak period.

(iii) Planned maintenance of generating units is being minimized during period of high demand.

(iv) New power generation capacity is being monitored closely for timely addition.

(v) Steady supply of coal to all the thermal power plants is being ensured to prevent fuel shortages.

(vi) Directions under Section 11 of Electricity Act have been issued to imported coal based plants to operate and generate power to their full capacity.

(vii) Gas-based power plants of NTPC as well as other generators are being scheduled during high power demand period.

(viii) Government has facilitated power trading through regulatory framework whereby states with surplus generation can sell power to states which are in deficit through three (3) power exchanges viz. Indian Energy Exchange (IEX), Power Exchange India Ltd (PXIL) and Hindustan Power Exchange Ltd.

(ix) Electricity market has been reformed by adding the Real Time Market (RTM), Green Day Ahead Market (GDAM), Green Term Ahead Market (GTAM), High Price Day Ahead Market (HPDAM) in Power exchange. Also, there is DEEP portal for e-bidding and e-Reverse for procurement of short-Term power by DISCOMs.

(c) : The hydro generation during the year 2024-25 (April, 2024 to February, 2025) was 1,39,780 Million Units (MUs) as compared to 1,27,038 MUs during corresponding period of 2023-24, showing a growth of 10 % in Hydro generation. Any shortfall/variation in generation from RE Sources including hydro is handled with corresponding change in thermal generation so as to adequately meet the power demand.

(d) : The Government has taken various measures to facilitate the integration of Renewable Energy (RE) resources into the National Grid to ensure reliability and stability as under:

i. Development of intra-state transmission network is being planned to keep pace with RE capacity addition. Strong inter connection of ISTS RE schemes with the intra-state network to ensure better reliability in terms of anchoring voltage stability, angular stability, losses reduction etc. is being done.

.....3.

ii. **Central Financial Assistance (CFA) is being provided to the States for setting up Transmission infrastructure for RE integration within their State under the Green Energy Corridor Scheme.**

iii. **Encouraging setting up of RE projects with storage facilities for optimal utilisation of transmission facilities.**

iv. **Flexibilization of thermal generation is mandated to address the variability of RE generation.**

v. **CEA (Technical Standards for Connectivity to the Grid) Regulations lay down the minimum technical requirements for the RE generating plants to ensure the safe, secure and reliable operation of the grid. The compliances to the said regulations by RE plants are verified jointly by Central Transmission Utility (CTUIL) and Grid-India/RLDCs before granting connectivity/interconnection to the national grid. Robust compliances verification is done before interconnection of any new plant to the grid.**

vi. **Indian Electricity Grid Code mandates that RE plants participate in the primary and secondary frequency control in case of contingencies. Hybrid RE power plants, Energy Storage Systems such as BESS (Battery Energy Storage System) and PSP (Pump Storage Project) are being promoted for mitigating variability in RE generation and provide adequate frequency support to the grid.**

vii. **Establishment of dedicated 13 No. of Renewable Energy Management Centres (REMC) in RE rich States and Regions for dedicated, monitoring, forecasting and scheduling of Solar and Wind plants.**

The details of capacity addition for the FY 2025-26 are given at Annexure.

****

ANNEXURE

ANNEXURE REFERRED IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 4386 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

The details of capacity addition for the FY2025-26 :

Project	Implementing Agency	Unit No.	State	Capacity (MW)	Commissioning Schedule
THERMAL (As on 10.03.2025)					
			CENTRAL SECTOR	**4,900 MW**	
Ghatampur TPP	NUPPL	U-2	Uttar Pradesh	660	May-25
Buxar TPP	SJVN	U-1	Bihar	660	May-25
Khurja SCTPP	THDC	U-2	Uttar Pradesh	660	Jun-25
Buxar TPP	SJVN	U-2	Bihar	660	Sep-25
Ghatampur TPP	NUPPL	U-3	Uttar Pradesh	660	Oct-25
Patratu STPP	PVUNL	U-2	Jharkhand	800	Dec-25
Patratu STPP	PVUNL	U-3	Jharkhand	800	Mar-26
			STATE SECTOR	**4,380 MW**	
Udangudi STPP St-I	TANGEDCO	U-1	Tamil Nadu	660	May-25
Sagardighi TPP St-III	WBPDCL	U-1	West Bengal	660	May-25
Yadadri TPS	TSGENCO	U-4	Telangana	800	Jun-25
Yadadri TPS	TSGENCO	U-3	Telangana	800	Jul-25
Udangudi STPP St-I	TANGEDCO	U-2	Tamil Nadu	660	Aug-25
Yadadri TPS	TSGENCO	U-5	Telangana	800	Sep-25
			PRIVATE SECTOR	**0**	
			TOTAL THERMAL (CENTRAL + STATE + PRIVATE)	**9,280**	
HYDRO (As on 12.03.2025)					
			CENTRAL SECTOR	**3,170 MW**	
Parbati-II	NHPC	U-1 to 4	Himachal Pradesh	800	Mar-25
Rangit-IV	NHPC	U-1 to 3	Sikkim	120	Dec-25
Subansiri Lower	NHPC	U-1 to 5	Arunachal Pradesh	1250	Dec-25
Tehri PSS	THDC	U-1 to 4	Uttarakhand	1000	Oct-25
			STATE SECTOR	**950 MW**	
Uhl-III	BVPCL	U-1 to 3	Himachal Pradesh	100	Mar-25
Lower Sileru Extension	APGENCO	U-1 to 2	Andhra Pradesh	230	Oct-25
Lower Kopili	APGCL	U-1 to 5	Assam	120	Sep-25
Kundah Pumped Storage (Phase-I, Phase-II & Phase-III)	TANGEDCO	U-1 to 4	Tamil Nadu	500	Dec-25
PRIVATE SECTOR				**1,920 MW**	
Kutehr	JSW	U-1 to 3	Himachal Pradesh	240	Jul-25
Pinnapuram	GREENKO	U-1 to 8	Andhra Pradesh	1680	Jul-25
			TOTAL HYDRO (CENTRAL + STATE + PRIVATE)	**6,040 MW**	

.....2.

NUCLEAR					
			CENTRAL SECTOR	**5,900 MW**	
Kudankulam Nuclear Power Plant	**NPCIL**	**U-3**	**Tamil Nadu**	**4000**	**Mar-26**
Prototype Fast Breeder Reactor (PFBR)	**BHAVINI**		**Tamil Nadu**	**500**	**2025-26**
Rajasthan Atomic Power Station (RAPS)	**NPCIL**	**U-7 to 8**	**Rajasthan**	**1400**	**2025-26**
			TOTAL (THERMAL + HYDRO+NUCLEAR)		**21,220 MW**

Renewable Energy :

1,53,920 MW Renewable Capacity including 84,310 MW of Solar, 28,280 MW of Wind and 40,890 MW Hybrid power is under construction. Out of this, 34,855 MW RE capacity is likely to be added by 2025-26.

Energy Storage Projects :

In energy storage systems, 13,050 MW/78,300 MWh Pumped Storage Projects are under construction/concurred and 14,970 MW/54,803 MWh Battery Energy Storage System are currently under various stages of construction/bidding. Out of this, 6,853 MW/ 36,592 MWh of energy storage system (3,180 MW/19,080 MWh Pumped Storage Projects and 3,673 MW/ 17,512 MWh of Battery Energy Storage System) is likely to be added by 2025-26.

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4427
ANSWERED ON 27.03.2025

GOAL TO ACHIEVE NET-ZERO EMISSION

†4427. SHRI MITESH PATEL BAKABHAI:
SHRI HASMUKHBHAI SOMABHAI PATEL:
SHRI DEVUSINH CHAUHAN:

Will the Minister of POWER
be pleased to state:

(a) the contribution of the dialogue held at international forum towards India's goal of achieving net-zero emissions by the year 2070;

(b) the manner in which the United Kingdom will assist India in strengthening grid resilience and energy storage solutions;

(c) the role assigned to green hydrogen and offshore wind energy in India's energy transition under this dialogue; and

(d) the technological innovations or knowledge-sharing initiatives proposed for improving energy efficiency?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : Achieving the net-zero target requires various measures including the technical measures and financial measures. The dialogues held at international forum supports the India's efforts towards net-zero by way of knowledge sharing among the participating organization of other countries and global organizations. During the India's G20 Presidency in 2023, the G20 New Delhi Leaders' Declaration was issued in which commitments towards pursuing low-GHG/low-carbon emissions was also made.

(b) to (c) : The Fourth India-UK Ministerial Energy Dialogue, co-chaired by Minister of Power and Secretary of State (SOS) for Department of Energy Security and Net Zero (DESNZ) for United Kingdom, was held in February 2025 in New Delhi.

Under the dialogue several programmes have been initiated. It was suggested to continue work on the Revamped Distribution Sector Scheme (RDSS), roll out of smart meters, grid upgradation through digitalization for outage management and renewable

.....2.

energy integration and asset monitoring under RDSS .The Accelerating Smart Power & Renewable Energy in India (ASPIRE) programme under the UK-India co-operation, the UK side shared knowledge for the development of Offshore wind tenders for Tamil Nadu and Gujarat, green hydrogen policies for certain States, development of 1GWh tenders for Energy storage and provided inputs for increasing solar manufacturing in India.

(d) : Energy efficiency initiatives in various sectors broadly include improving the minimum energy performance standards of appliances, implementation of energy conservation and sustainable building code in commercial and residential buildings, increased energy conservation measures in industries, improving fuel economy in transport sector.

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4431
ANSWERED ON 27.03.2025

SLOW ADAPTATION OF SMART METERS

4431. SHRI VISHALDADA PRAKASHBAPU PATIL:

Will the Minister of POWER
be pleased to state:

(a) whether any digital platforms are available to facilitate easy recharge and complaint registration for smart meters and if so, the details thereof;

(b) whether the Government is aware of the slow adaptation of smart meters in certain regions, where progress has been slow, with only 14.5 million meters installed out of the 117.7 million as of October 2024; and

(c) if so, the steps taken/being taken by the Government to ensure robust implementation and wider adaptation especially in district like Sangli?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) to (c) : Government of India, in July 2021, launched the Revamped Distribution Sector Scheme (RDSS) with the objective of improving the quality and reliability of power supply to consumers through a financially sustainable and operationally efficient Distribution Sector in the country. Under the scheme, projects have been sanctioned for loss reduction infrastructure & smart metering works.

Out of the total target of 20.33 crore Smart meters sanctioned under Revamped Distribution Sector Scheme (RDSS), approximately 1.36 crore (6.7%) Smart meters have been installed in the country. Ministry of Power is regularly reviewing the progress of installation of Smart meters by various Distribution Utilities and is taking necessary steps.

The installation of Smart meters has been affected due to the following reasons:

- **Smart meter being a new concept, there were delays in issue of tenders and establishment of direct debit facility mechanism for payment.**
- **Collection and validation of data for Consumer Indexing.**
- **Time taken in Testing and approvals like Field installation and integration test, Factory acceptance test and likewise.**

.....2

Smart meters are required to adhere to relevant technical and quality standards and need to have valid tests and BIS (Bureau of Indian Standards) certificate. For complaint redressal, a helpline number has been provided by the distribution utilities.

GoI has issued the Standard Bidding Document (SBD) for engaging services of Advanced Metering Infrastructure Service Provider for smart meter installation and providing necessary services. The Clause 2.5 Section 6 of the SBD provides for creating user interface for providing easy recharge option and for lodging/resolution of consumer complaints. For reference, for the district of Sangli, the mobile app-'MAHA VIDYUT' has been provided for easy recharge and complaint lodging.

The following steps have been taken or are being taken by the Ministry to expedite installation of the Smart meters in the country, including the district of Sangli, Maharashtra:

- **Standard operating procedures (SoPs) has been issued for smart meters which include provisions for providing multiple recharge options, having consumer feedback mechanism, effective complaint resolution mechanism and comprehensive consumer engagement campaign, etc.**

- **Directions have been issued for establishment of smart meter feedback collection units.**

- **Distribution Utilities have been asked to ensure readiness of Smart meter mobile apps for regular tracking of consumption of electricity and for providing multiple recharge.**

- **In order to promote pre-paid smart metering, States have been advised to provide rebate of upto 5% to pre-paid consumers.**

- **Regular review of progress with the States and Distribution Utilities on the tendering and award of smart meter works and their installation.**

- **Distribution Utilities have been advised for Installation of check meters for up-to 5% of the Smart meters installed and mandatorily in case of complaints related to Smart meters.**

- **Advisory has been issued for prioritizing installation of Smart meter in Government Establishments, Government colonies and Industrial and commercial category of consumers and other high load consumers. Based on successful demonstration in above category of consumers, Smart meter installation may be rolled out for other consumers. Also, advisory prescribes for regular consumer engagement exercise in respect of Smart meters so as to build consumer confidence.**

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4435
ANSWERED ON 27.03.2025

CARBON CREDIT TRADING SYSTEM

4435. SHRI P V MIDHUN REDDY:

Will the Minister of POWER be pleased to state:

(a) whether the designated consumers (DCs) under the Perform, Achieve and Trade (PAT) scheme shall be transitioned to the newly launched Carbon Credit Trading System (CCTS) by 2026-27 and if so, the details thereof;

(b) whether the Government has made any assessment of the actual benefit that would accrue to these DCs on account of such transition and if so, the details thereof; and

(c) whether the Government has planned to collaborate with other countries that have implemented/announced similar schemes for learning and trading and if so, the details thereof?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : Designated Consumers in identified sectors are expected to be gradually transitioned from the Perform, Achieve and Trade (PAT) scheme to the Carbon Credit Trading System (CCTS) by 2026-27.

(b) : The Ministry of Power has not conducted any specific assessment of the actual benefits that would accrue to these designated consumers (DCs) as a result of such a transition.

Under the PAT scheme, targets for obligated entities are set in terms of energy savings, whereas under the CCTS, targets are assigned based on greenhouse gas emission intensity. Compliance with these emission targets helps entities benefit from energy conservation and emission reduction, enhancing the competitiveness of their products. Additionally, entities that exceed their prescribed targets earn carbon credit certificates, which can be monetised.

(c) : Presently, the Ministry of Power has no such plans. However, learnings from international experiences are being incorporated in the design of CCTS.

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4447
ANSWERED ON 27.03.2025

POWER GENERATION CAPACITY

†4447. SHRI IMRAN MASOOD:

Will the Minister of POWER be pleased to state:

(a) the total power generation capacity in the country, year-wise since the year 2015;

(b) the steps taken by the Union Government to increase power generation capacity since the year 2014;

(c) whether the per-unit cost of power generation has increased due to coal imports in recent years, if so, the details thereof; and

(d) the steps taken by the Government to reduce the per-unit cost of power generation?

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 2014-15 to 2024-25 (upto February 2025) are given at Annexure.

(b) : Government of India has taken following steps to increase the power generation capacity in the country since 2014:

(i) Increase in installed capacity from 2,48,554 MW in March 2014 to 4,70,448 MW in February 2025 including increase in installed capacity of coal based thermal power plants from 1,39,663 MW to 2,15,193 MW and Renewable Energy (RE) (including Large Hydro) from 75,519 MW to 2,14,678 MW during this period.

(ii) Addition of 2,01,088 circuit kilometer (ckm) of transmission lines, 7,78,017 MVA of Transformation capacity and 82,790 MW of Inter-Regional capacity with capability of transferring 1,18,740 MW from one corner of the country to another.

(iii) Waiver of ISTS charges on transmission of electricity generated from Solar, Wind, Pumped Storage Plants and Battery Energy Storage Systems.

(iv) Renewable Purchase Obligations (RPOs) and Energy Storage obligations Trajectory till 2029-30.

(v) Construction of Green Energy Corridors and putting in place 13 Renewable Energy Management Centres.

.....2.

(vi) Setting up of Ultra Mega Renewable Energy Parks to provide land and transmission to RE developers for installation of RE projects at large scale.

(vii) Reduction of AT&C losses from 22.62% in 2013-14 to 16.28 % in 2023-24. 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. 18,857 Crore.

(viii) 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 towards Cost of Enabling Infrastructure i.e., roads / bridges, etc. The scope of Budgetary support towards cost of enabling infrastructure has been subsequently expanded on 08.10.2024 to include : (a) Transmission line upto nearest cooling point including upgradation of cooling sub-stations, (b) Railway sidings, (c) Communication infrastructure, and (d) Rope ways.

(ix) Introduction of SHAKTI policy for transparent allocation of coal to Thermal Power plants. This enabled efficient domestic coal allocation to Thermal Power Plants and also ensured revival of various stressed Thermal Power Projects.

(x) 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 decreased by 5 Paisa between FY 2022-23 and FY 2023-24.

(d) : Government of India have taken following steps to reduce the cost of power generation in the county :

(i) Setting up of Power Exchanges to ensure fair, neutral, efficient and robust electricity price discovery.

(ii) Introduction of flexibility in utilization of domestic coal by State/Central Generation Companies (GENCOs).

(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) Issuance of guidelines for tariff based bidding process for procurement of electricity under Section 63 of Electricity Act, 2003 to promote competitive procurement of electricity by distribution licensees.

(v) Reduction of Aggregate Technical & Commercial (AT&C) losses under RDSS will improve the finances of the utilities, which will enable them to better maintain the system and buy power as per requirements; benefitting the consumers.

(vi) Operationalisation of National Merit Order Dispatch with the objective of lowering the cost of electricity to consumers.

****

ANNEXURE

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4447 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

The year wise details of total power generation capacity in the country from 2014-15 to 2024-25 (upto February 2025):

Year	Installed Capacity (in MW)
2014-15	2,75,895
2015-16	3,06,330
2016-17	3,28,146
2017-18	3,45,631
2018-19	3,57,871
2019-20	3,71,334
2020-21	3,83,521
2021-22	3,99,497
2022-23	4,16,059
2023-24	4,41,970
2024-25 (up to Feb 2025)	4,70,448

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4454
ANSWERED ON 27.03.2025

ELECTRIFICATION IN BIJNOR AND MORADABAD

†4454. MRS RUCHI VIRA:

Will the Minister of POWER
be pleased to state:

(a) the details of the number of villages electrified under the Pandit Deendayal Upadhyaya Gram Jyoti Yojana in Moradabad and Bijnor districts;

(b) the details of the number of villages and hamlets still deprived under this scheme and the target timeline for their complete electrification;

(c) the details of the funds sanctioned and released for village electrification in Moradabad and Bijnor districts, the agencies assigned for this work and the amount utilised on the maintenance; and

(d) the details of the steps taken to ensure 24-hour power supply in Moradabad and Bijnor districts, along with the current hours of electricity supply, the load and the electricity requirement in these districts?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) & (b) : Government of India (GoI) launched Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) in 2014. As reported by the States, all the inhabited un-electrified census villages in the country were electrified by 28th April, 2018. A total of 18,374 villages at the National level, including 12 villages in Moradabad and 256 villages in Bijnor districts, were electrified under DDUGJY. As reported by Pashchimanchal Vidyut Vitran Nigam Ltd (PVVNL), Uttar Pradesh, there was no village in Moradabad and Bijnor districts deprived under the scheme. The scheme stands closed as on 31.03.2022.

(c) & (d) : The details of fund sanctioned and utilised in Moradabad and Bijnor districts under DDUGJY scheme are as under:

(in Rs. Cr)

District	Sanctioned Project Cost	Project Closure Amount	GoI Grant Released	Agencies
Moradabad	284.58	247.77	198.09	1.M/s IL&FS 2.M/s Cosmic Enterprises
Bijnor	449.31	412.03	314.72	1.M/s Vishwanath 2.M/s Satya Sai 3.M/s Genus

.....2.

Electricity is a concurrent subject and distribution of electricity, including maintenance of distribution assets, in States is handled generally by the State distribution utilities, as regulated by respective State Electricity Regulatory Commissions (SERCs), and under overall supervision of State Electricity Departments. Accordingly, the details regarding maintenance works is not maintained by Government of India.

Government of India launched the Revamped Distribution Sector Scheme (RDSS) to help Distribution Utilities improve quality of supply of power through operationally efficient and financially viable distribution sector. Under the scheme, projects have been sanctioned for loss reduction infrastructure and smart metering works. Under RDSS, sanction has been accorded district wise whereas fund has been released DISCOM wise as per fund disbursement guideline.

The districts of Moradabad and Bijnor fall under the jurisdiction of PVVNL DISCOM.

The details of project sanctions in Moradabad and Bijnor district and fund released and utilized by PVVNL under RDSS is as below:

(in Rs. Cr)

District	Sanctioned Cost	GBS Sanction	GoI Release to PVVNL	Total Expenditure (till 20th March, 2025)
Moradabad	679.07	280.11	380.86	844.32
Bijnor	847.53	226.64		

The agencies for RDSS work in Bijnor and Moradabad district are as mentioned below:

District	Smart Metering	Loss Reduction
Moradabad	Intelli smart	NCC Ltd
Bijnor	Intelli smart	NCC Ltd

As per Rule (10) of the Electricity (Rights of Consumers) Rules, 2020, the distribution licensee shall supply 24x7 power to all consumers. However, the Commission may specify lower hours of supply for some categories of consumers like agriculture. The Rules are applicable for all States and for all areas including urban and rural areas.

Current status of electricity supply in urban and rural areas of Moradabad and Bijnor districts as reported by REC Power development Consultancy Limited as per National Feeder Monitoring System are as follows:

Districts	Hours of Electricity supply	
	Urban	Rural
Moradabad	23.06 Hours	21.15 Hours
Bijnor	22.22 Hours	20.12 Hours

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4470
ANSWERED ON 27.03.2025

FINANCIAL VIABILITY OF DISCOMS

4470. SHRI DINESHBHAI MAKWANA:
DR. RAJESH MISHRA:
SHRI BIDYUT BARAN MAHATO:
SHRI ARUN GOVIL:
SHRI LUMBA RAM CHAUDHARY:
SHRI BHARTRUHARI MAHTAB:
SHRI NABA CHARAN MAJHI:
SHRI YOGENDER CHANDOLIA:
SHRI DILIP SAIKIA:
SHRI RAO RAJENDRA SINGH:

Will the Minister of POWER be pleased to state:

(a) the manner in which the Government is working towards improving the financial viability of electricity distribution utilities across India;

(b) the role of renewable energy in reducing power costs and enhancing the sustainability of DISCOMs;

(c) the manner in which the Government plans to strengthen regulatory frameworks for improving cost-reflective power tariffs; and

(d) the efforts being made for solar energy in Sidhi Parliamentary Constituency?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : Government of India (GoI) has been supporting the Power Distribution Utilities to improve their performance through various initiatives. Some of the key initiatives taken are as under:

i. **Revamped Distribution Sector Scheme (RDSS) has been launched with the objective of improving the quality and reliability of power through a financially sustainable and operationally efficient Distribution Sector. The release of funds under the scheme is linked to States/ Distribution Utilities taking necessary measures for improving their performance against specified parameters including the Gap between average cost of supply and average revenue realized i.e. ACS-ARR Gap and the Aggregate Technical & Commercial (AT&C) losses.**

.....2.

ii. Allowing additional borrowing space of 0.5% of GSDP to the State if the distribution utility implements loss reduction measures.

iii. Additional Prudential Norms have been specified for sanctioning of loans to State owned Power Utilities which is contingent on performance of Power Distribution Utilities against prescribed parameters.

iv. Timely filing of tariff petitions and issuance of tariff orders.

v. Rules have been notified for implementation of Fuel and Power Purchase Cost Adjustment (FPPCA) and cost reflective tariff to ensure all prudent costs for supply of electricity are passed through and are timely realised.

vi. Rules and Standard Operating Procedure have been issued for proper Subsidy Accounting and their timely payment.

With collective efforts of the Centre and States/UTs, the AT&C loss of distribution utilities at the national level has reduced from ~22% in FY 2021 to ~16.28% in FY 2024 and the ACS-ARR Gap has reduced from Rs. 0.71/kWh to Rs. 0.19/kWh during the same period.

(b) : Renewable energy particularly if produced near the load centers, would reduce power costs and enhance the sustainability of distribution Utilities.

(c) The following measures have been taken by Government of India to strengthen regulatory framework for improving cost-reflective power tariff. Rules have been notified for:

(i) Ensuring that tariff shall be cost reflective and there shall not be any gap between estimated and approved Annual Revenue Requirement except under natural calamity conditions, provided that such gap, created if any, shall not be more than three percent of the approved Annual Revenue Requirement.

(ii) Aligning the Aggregate Technical and Commercial loss reduction trajectory with the trajectory agreed by the respective State Governments and approved by the Central Government under any national scheme or programme.

(iii) Pass-through of prudent costs of power procurement, incurred by distribution licensee for ensuring 24x7 supply of electricity to consumers and for meeting requirements as per Resource Adequacy plan.

(iv) Providing reasonable Return on Equity (RoE) and to align the same with the RoE specified by the Central Commission for generation and transmission.

(v) Timely issuance of tariff order and timely payment of subsidy declared by State Government.

.....3.

(d) : The following efforts have been made to promote solar energy in the country including in the Sidhi Parliamentary Constituency:

i. **Permitting Foreign Direct Investment up to 100 percent under the automatic route for renewable energy projects**

ii. **Inter State Transmission System charges have been waived for solar and wind power based renewable energy projects to be commissioned up to 30th June 2025. For Green Hydrogen Projects, the waiver is till 31st December 2030 and for offshore wind projects, the waiver is till 31st December 2032.**

iii. **Setting up of Ultra Mega Renewable Energy Parks, to provide land and transmission access to renewable energy developers.**

iv. **Standard Bidding Guidelines have been issued for procurement of Power from Grid Connected Solar, Wind-Solar Hybrid and Firm & Dispatchable RE (FDRE) projects through a tariff based competitive bidding process.**

v. **Schemes such as Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM), PM Surya Ghar: Muft Bijli Yojana, National Programme on High Efficiency Solar PV Modules, New Solar Power Scheme (for Tribal and PVTG Habitations/Villages) under Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) and Dharti Aabha Janjatiya Gram Utkarsh Abhiyan (DA JGUA), etc. have been launched.**

vi. **Evacuation of renewable power under the Green Energy Corridor Scheme through laying of new transmission lines and creation of new sub-station capacity.**

vii. **Green Term Ahead Market has been launched to facilitate sale of renewable power through exchanges.**

viii. **Transmission Plan for integration of 500 GW renewable energy capacity by 2030.**

ix. **Promotion of renewable energy through Green Energy Open Access Rules 2022.**

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4471
ANSWERED ON 27.03.2025

THERMAL POWER PROJECTS IN TAMIL NADU

4471. SHRI MANI A:

Will the Minister of POWER be pleased to state:

(a) the number of thermal power projects being developed in the country, including Tamil Nadu;

(b) the rationale behind the Government's proposal to expand thermal power capacity in the country and the specific capacity addition targets in megawatts set for the upcoming projects;

(c) whether the Government has a detailed plan outlining the proposed thermal power projects including their locations, expected timelines for commissioning and the projected financial outlays, if so, the details thereof; and

(d) the manner in which the Government plans to reconcile the expansion of thermal power capacity with its long-term commitments to renewable energy development and reduction of carbon emissions under international climate agreements?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) to (c): In order to meet the estimated electricity demand by 2031-32, generation planning studies has been carried out by Central Electricity Authority (CEA). As per the study results, it is envisaged that to meet the base load requirement of the country in 2032, the required coal & lignite based installed capacity would be 283 GW. Considering this, Government of India (GoI) has proposed in November, 2023 for setting up of an additional minimum 80,000 MW coal-based thermal capacity by 2031-32.

Against this target, a total coal-based capacity of 9,350 MW has already been commissioned in 2023-24 & 2024-25 and currently, 32,300 MW of thermal capacity is under construction. In FY 2024-25, contracts for 23,440 MW thermal capacity have been awarded, out of which about 8,000 MW is now under construction. Further, 35,180 MW of coal-based candidate capacity has been identified which is at various stages of planning in the country. This includes both Brownfield expansion and Greenfield capacity.

A total number of 23 Coal Based Thermal Power Projects (43 Units) are being developed(under construction) in the country, including 3 number of Coal Based Thermal Power Projects (5 Units)in State of Tamil Nadu. The detailed plan outlining the under construction thermal power projects including their locations & expected timelines for commissioning is at Annexure.

.....2.

The estimated capital cost for setting up of new coal based thermal capacity as considered in National Electricity Plan is Rs 8.34 Cr/ MW (at 2021-22 price level). Hence, the thermal capacity addition of 80,000 MW is expected to entail an expenditure of minimum Rs 6,67,200 Crs by 2031-32.

(d) : While the expansion of thermal power capacity, as mentioned above, is essential to meet the base load requirement of the country, India stands committed to achieve about 50 percent cumulative electric power installed capacity from non-fossil fuel based energy resources by 2030 in its Intended Nationally Determined Contributions (INDCs). At present India has already achieved 47.3 percent installed capacity from non-fossil fuel based resources. In line with its long term commitment for renewable energy development and reduction of carbon emissions, following initiatives have been taken by Government of India:

i. **Ministry of New & Renewable Energy (MNRE) has issued Bidding Trajectory for issuance of RE power procurement bids of 50 GW/annum by Renewable Energy Implementing Agencies from FY 2023-24 to FY 2027-28.**

ii. **Foreign Direct Investment (FDI) has been permitted up to 100 percent under the automatic route.**

iii. **Inter State Transmission System (ISTS) charges have been waived for inter-state sale of solar and wind power for projects to be commissioned by 30th June 2025, for Green Hydrogen Projects till December 2030 and for offshore wind projects till December 2032.**

iv. **To boost RE consumption, Renewable Purchase Obligation (RPO) followed by Renewable Consumption Obligation (RCO) trajectory has been notified till 2029-30. The RCO which is applicable to all designated consumers under the Energy Conservation Act 2001 will attract penalties for non-compliance.**

v. **Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar, Wind, Wind-Solar Hybrid and Firm & Dispatchable RE (FDRE) projects have been issued.**

vi. **Schemes such as Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM), PM Surya Ghar Muft Bijli Yojana, National Programme on High Efficiency Solar PV Modules, National Green Hydrogen Mission, Viability Gap Funding (VGF) Scheme for Offshore Wind Energy Projects have been launched.**

vii. **Scheme for setting up of Ultra Mega Renewable Energy Parks is being implemented to provide land and transmission to RE developers for installation of RE projects at large scale.**

viii. **Laying of new transmission lines and creating new sub-station capacity has been funded under the Green Energy Corridor Scheme for evacuation of renewable power.**

ix. **"Strategy for Establishment of Offshore Wind Energy Projects" has been issued indicating a bidding trajectory of 37 GW by 2030 and various business models for project development.**

.....3.

x. **The Offshore Wind Energy Lease Rules, 2023 have been notified vide Ministry of External Affairs notification dated 19th December 2023, to regulate the grant of lease of offshore areas for development of offshore wind energy projects.**

xi. **To augment transmission infrastructure needed for steep RE trajectory, transmission plan has been prepared till 2030.**

xii. **Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022, has been notified on 06th June 2022 with objective of ensuring access to affordable, reliable, and sustainable green energy for all. Green Energy Open Access is allowed to any consumer with contract demand of 100 kW or above through single or multiple single connection aggregating One Hundred kW or more located in same electricity division of a distribution licensee.**

xiii. **Green Term Ahead Market (GTAM) has been launched to facilitate sale of Renewable Energy Power through exchanges.**

xiv. **To achieve the objective of increased domestic production of Solar PV Modules, the Govt. of India is implementing the Production Linked Incentive (PLI) scheme for High Efficiency Solar PV Modules with an outlay of Rs. 24,000 crore. This will enable manufacturing capacity of Giga Watt (GW) scale in High Efficiency Solar PV Module.**

xv. **Promotion of installation of efficient Ultra Supercritical/Supercritical units over Subcritical Thermal Units.**

xvi. **Biomass co-firing- Ministry of Power has issued revised policy on Bio-mass Utilization for Power Generation through Co-firing in Coal based Power Plants which mandated all coal based thermal power plants in the country to use 5-7% biomass along with coal for power production.**

xvii. **MoEF&CC vide its notification dated 07.12.2015 and its subsequent amendments has notified norms in respect of reducing stack emissions from coal based Thermal Power Plants.**

****

ANNEXURE

ANNEXURE REFERRED IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 4471 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

Details of Under Construction Thermal Capacity (Coal Based) *[As on 25.03.2025]*

Sl. No	Project Name/ Impl. Agency	Sector	State	Unit No.	Capacity (MW)	Anticipated Trial Run Date
F Y. 2024-25						
1	North Chennai TPP, St-III (TANGEDCO)	STATE	Tamil Nadu	U-1	800	Mar-25
2	Yadadri TPS (TSGENCO)	STATE	Telangana	U-1	800	Mar-25
3	Obra-C STPP (UPRVUNL)	STATE	Uttar Pradesh	U-2	660	Mar-25
4	Patratu STPP (PVUNL)	CENTRAL	Jharkhand	U-1	800	Mar-25
5	North Karanpura STPP (NTPC)	CENTRAL	Jharkhand	U-3	660	Mar-25
6	Barh STPP St-I (NTPC)	CENTRAL	Bihar	U-3	660	Mar-25
	Sub-Total				4,380	
F Y. 2025-26						
7	Udangudi STPP St-I (TANGEDCO)	STATE	Tamil Nadu	U-1	660	May-25
8	Sagardighi TPP St-III (WBPDCL)	STATE	West Bengal	U-1	660	May-25
9	Ghatampur TPP (NUPPL)	CENTRAL	Uttar Pradesh	U-2	660	May-25
10	Buxar TPP (SJVN)	CENTRAL	Bihar	U-1	660	May-25
11	Yadadri TPS (TSGENCO)	STATE	Telangana	U-4	800	Jun-25
12	Khurja SCTPP (THDC)	CENTRAL	Uttar Pradesh	U-2	660	Jun-25
13	Yadadri TPS (TSGENCO)	STATE	Telangana	U-3	800	Jul-25
14	Udangudi STPP St-I (TANGEDCO)	STATE	Tamil Nadu	U-2	660	Aug-25
15	Yadadri TPS (TSGENCO)	STATE	Telangana	U-5	800	Sep-25
16	Buxar TPP (SJVN)	CENTRAL	Bihar	U-2	660	Sep-25
17	Ghatampur TPP (NUPPL)	CENTRAL	Uttar Pradesh	U-3	660	Oct-25
18	Patratu STPP (PVUNL)	CENTRAL	Jharkhand	U-2	800	Dec-25
19	Patratu STPP (PVUNL)	CENTRAL	Jharkhand	U-3	800	Mar-26
	Sub-Total				9,280	
F Y. 2026-27						
20	Ennore SCTPP (TANGEDCO)	STATE	Tamil Nadu	U-1	660	Sept-26
21	Ennore SCTPP (TANGEDCO)	STATE	Tamil Nadu	U-2	660	Nov-26
22	Mahan STPP,St-II (Mahan Energen)	PRIVATE	M. P.	U-3	800	Dec-26
Sub-Total					2,120	
F Y. 2027-28						
23	Mahan STPP,St-II (Mahan Energen)	PRIVATE	M. P.	U-4	800	May-27
24	Raigarh USCTPP, St-II/ Adani Power	PRIVATE	Chhattisgarh	U-3	800	Jun-27
25	Talcher TPP St-III (NTPC)	CENTRAL	Odisha	U-1	660	Sep-27
26	Raigarh USCTPP, St-II/ Adani Power	PRIVATE	Chhattisgarh	U-4	800	Oct-27
27	Talcher TPP St-III (NTPC)	CENTRAL	Odisha	U-2	660	Dec-27
28	Lara STPP St-II (NTPC)	CENTRAL	Chhattisgarh	U-1	800	Dec-27

29	Raipur Ext TPP, Ph-II /Adani Power	PRIVATE	Chhattisgarh	U-1	800	Jan-28
Sub-Total					5,320	
F Y. 2028-29						
30	Lara STPP St-II (NTPC)	CENTRAL	Chhattisgarh	U-2	800	Jun-28
31	Raipur Ext TPP, Ph-II /Adani Power	PRIVATE	Chhattisgarh	U-2	800	Jul-28
32	Koderma TPS, St-II/ DVC	CENTRAL	Jharkhand	U-1	800	Aug-28
33	Koderma TPS, St-II/ DVC	CENTRAL	Jharkhand	U-2	800	Dec-28
34	NLC TALABIRA TPP (NLC)	CENTRAL	Odisha	U-1	800	Mar-29
Sub-Total					4,000	
F Y. 2029-30						
35	Singrauli STPP, St-III (NTPC)	CENTRAL	UP	U-1	800	May-29
36	New Nabi Nagar- II (NTPC)	CENTRAL	Bihar	U-1	800	Jul-29
37	NLC TALABIRA TPP (NLC)	CENTRAL	Odisha	U-2	800	Sep-29
38	DCR TPP Ext., Yamunanagar	State	Haryana	U-1	800	Sep-29
39	Sipat STPP, St-III (NTPC)	CENTRAL	Chhattisgarh	U-1	800	Sep-29
40	Singrauli STPP, St-III (NTPC)	CENTRAL	UP	U-2	800	Nov-29
41	New Nabi Nagar- II (NTPC)	CENTRAL	Bihar	U-2	800	Jan-30
42	NLC TALABIRA TPP (NLC)	CENTRAL	Odisha	U-3	800	Mar-30
Sub Total					6,400	
F Y. 2030-31						
43	New Nabi Nagar- II (NTPC)	CENTRAL	Bihar	U-3	800	Jul-30
Sub-Total					800	
Grand Total (No of Projects: 23)					32,300	

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4481
ANSWERED ON 27.03.2025

WORK UNDERTAKEN BY IPDS

†4481. SHRI ARUN KUMAR SAGAR:

Will the Minister of POWER be pleased to state:

(a) whether the works are being undertaken as per Integrated Power Development Scheme (IPDS) in the country especially in Shahjahanpur Parliamentary Constituency of Uttar Pradesh;

(b) if so, the details thereof especially in the said Constituency along with the current status of the same as on date; and

(c) the details of the funds allocated and utilised in this regard during the last three years and current year as on date, year-wise?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) to (c) : Government of India (GoI) launched Integrated Power Development Scheme (IPDS) in 2014 with objectives to strengthen sub-transmission and distribution networks in the urban areas and reduce Aggregate Technical & Commercial (AT&C) losses through metering. Projects worth ₹ 28,731 Cr. were executed under the scheme. The scheme stands closed as on 31.03.2022.

The work under IPDS were sanctioned Circle wise based on the Detailed Project Report (DPR) submitted by the Utility. The major works implemented at National level and in Electricity Distribution Circle (EDC) Shahjahanpur are as below:

Sr. No.	Milestone Name	Unit	Competed Quantity at the National level	EDC- Shahjahanpur Completed Quantity
1	New Sub-station	No.	1086	4
2	Aug. of Sub-station	No.	1,609	6
3	New HT Lines	CKm	23,474	105.21
4	AB Cable	CKm	64,242	175.76
5	New LT Lines	CKm	10,410	12.94
6	UG Cables	Km	22,021	5.27
7	New Distribution Transformers	No.	59,993	130

.....2.

Fund Sanctioned and Disbursed under IPDS are as below:

(in Rs. Cr)

	Circle	Sanctioned Project Cost	Completed Project Cost	Eligible GoI Grant	Total GoI Disbursement (Net)
At the National Level	-	32,300	28,731	17,994	17,795
Shahjahanpur Constituency	EDC Shahjahanpur	65.96	51.66	31	31

The details of the Central fund allocated along with its utilization during the last three years and current year as on date, Year-wise:

(in Rs. Cr)

Constituency	Circle		Sanctioned Cost				Funds Disbursed		
		FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 21-22	FY 22-23*	FY 23-24*	FY 24-25*
At the National level		NIL	NIL	NIL	NIL	1,981	193	36	13
Shahjahanpur	EDC Shahjahanpur	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

***FY 2022-23 onwards, Funds (balance claims under IPDS) are being released through budget provisions of Revamped Distribution Sector Scheme (RDSS).**

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4482
ANSWERED ON 27.03.2025

UNIVERSAL STANDARD FOR ENERGY STORAGE SYSTEM

4482. SHRI ADITYA YADAV:

Will the Minister of POWER be pleased to state:

(a) whether the Government is cognizant of the fact that the country requires a universal standard for all types of energy storage systems;

(b) if so, the details of the steps taken/being taken by the Government in this regard;

(c) whether the Government agrees with the view that it should authorize third-party testing and certification till the time it sets up storage certification agencies; and

(d) if so, the details of the initiatives proposed to be taken by the Government in this regard and if not, the reasons therefor?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) & (b) : Different standards currently govern Energy Storage Systems (ESS) concerning connectivity, construction, and safety. The Central Electricity Authority (CEA) has notified technical standards for connectivity. Additionally, CEA has specified construction standards that cover Pumped Storage Plants. The Bureau of Indian Standards (BIS) has published standards covering vocabulary, test methods, safety and environmental aspects.

(c) & (d) : Various government testing agencies, including Central Power Research Institute (CPRI) conduct third-party certification for cells, batteries, and battery packs.

In addition to government agencies, non-government testing agencies are also eligible for testing and issue certificates after NABL (National Accreditation Board for Testing and Calibration Laboratories) accreditation and approval from BIS, if required.

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4500
ANSWERED ON 27.03.2025

ESTABLISHMENT OF POWER PLANTS IN KERALA

4500. SHRI M K RAGHAVAN:

Will the Minister of POWER be pleased to state:

(a) whether the Government has received any proposal from the Government of Kerala for establishing power plants in Kerala, if so, the details thereof;

(b) whether the Government has any plan to establish a nuclear power plant in Kerala, if so,the details thereof; and

(c) whether the Government has received written consent from the State Government for establishing a nuclear power plant in Kerala, if so, the details thereof?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : No such proposal has been received in Ministry of Power. However, as per Section 7 of Electricity Act, 2003 setting up of a power plant is a de-licensed activity in the country. Any generating company may establish, operate and maintain a generating station without requiring a license under Electricity Act, 2003 if it complies with the technical standards relating to connectivity with the grid. The availability of adequate generation capacity to meet the electricity demand in a State lies under the purview of the respective State Government/ State Power Utility. In order to meet the demand of electricity, State may either set up generating capacity of its own or may invite bid for setting up of new power plant.

(b) & (c) : Presently, there is no proposal for setting up of a nuclear power plant in the State of Kerala. If the Government of Kerala proposes to setup a nuclear power plant in the State to meet its emerging power demand, the Government of India will extend all necessary support.

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4503
ANSWERED ON 27.03.2025

NHPC POWER STATIONS/PLANTS IN NORTH EASTERN REGION

4503. DR. ANGOMCHA BIMOL AKOIJAM:

Will the Minister of POWER
be pleased to state:

(a) the total number of National Hydroelectric Power Corporation (NHPC) power Stations/plants currently operational in the North Eastern region along with their location and power generation capacity;

(b) whether there are any plans to decommission any NHPC power stations/plants in the region and if so, the details thereof including the reasons for such decommissioning;

(c) the total power output generated by NHPC in the North Eastern Region over the last five years, State and year-wise;

(d) the number of local jobs generated by NHPC power stations/plants in the region, both direct and indirect employment; and

(e) the future plans of NHPC in the North Eastern region of the country including any proposed new projects, expansions or modernization efforts?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) & (c) : NHPC operates following three hydroelectric (HE) power stations in North Eastern region aggregating to 675 MW capacity and has generated 16935 Million Units (MU) of electricity in past five years:

Sl. No.	Power Station	Location/ State	Capacity (MW)	Generation (in MU)				
				2019-20	2020-21	2021-22	2022-23	2023-24
1	Loktak	Manipur	105	367	622	401	478	298
2	Rangit	Sikkim	60	355	289	338	332	298
3	Teesta-V*	Sikkim	510	2832	2830	2671	2858	1966
Grand Total			675	3554	3741	3410	3668	2562

***Presently under restoration.**

(b) : There are no plans to decommission any NHPC power stations in North Eastern region.

(d) : Presently, a total of 1102 contract labours have been engaged in NHPC power projects/stations in the region.

(e) : NHPC is currently constructing four hydroelectric/multipurpose projects with a combined capacity of 5,500 MW in North East region. Additionally, five hydroelectric/multipurpose projects are proposed in the region. Details are at Annexure.

Further, NHPC Ltd. has undertaken Renovation & Modernization (R&M) works of Loktak power station (105 MW) in Manipur. The power station was commissioned in 1983 and has completed its schedule life of 35 years in May 2018.

****

ANNEXURE

ANNEXURE REFERRED IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 4503 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

1. Under Construction hydroelectric/multipurpose projects by NHPC

Sl. No.	Project	State	Capacity (MW)
Under Construction			
1.	Subansiri Lower HE Project	Arunachal Pradesh	2000
2.	Dibang Multipurpose Project	Arunachal Pradesh	2880
3.	Teesta-VI HEProject	Sikkim	500
4.	Rangit-IV HE Project (Through JPCL: A wholly owned subsidiary of NHPC Ltd.)	Sikkim	120
	Total		5500

2. Proposed projects in North Eastern Region

Sl. No.	Project	State	Capacity (MW)
1.	Kamala HE Project	Arunachal Pradesh	1720
2.	Subansiri Upper HE Project	Arunachal Pradesh	1605
3.	Upper Siang Multipurpose Project	Arunachal Pradesh	11200
4.	Siang Lower HE Project	Arunachal Pradesh	2700
5.	Teesta-IV HE Project	Sikkim	520
Total			17745

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4535
ANSWERED ON 27.03.2025

REFORMS IN POWER SECTOR

4535. SMT. D K ARUNA:
SHRI EATALA RAJENDER:

Will the Minister of POWER be pleased to state:

(a) whether the Government is working on the power sector reforms in consultation with States and would incentivize electricity distribution reforms and augmentation of intra-state transmission capacity by States and if so, the details thereof;

(b) whether the Government would improve the financial health and capacity of electricity companies and also additional borrowing of 0.5 per cent of Gross State Domestic Product would be allowed to States contingent on these reforms; and

(c) if so, the details thereof and the progress made along with the funds sanctioned and utilized, district and State-wise including Telangana?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : Government of India (GoI) has been supplementing the efforts of States/ distribution utilities through various reform measures with the objective of having a financially viable and sustainable power sector (distribution segment in particular).

In line with the recommendation of the Fifteenth Finance Commission (15th FC), GoI launched the scheme of allowing additional borrowing space of 0.50 per cent of Gross State Domestic product (GSDP) to States for a four-year period from FY 2021-22 to FY 2024-25, conditional on them undertaking financial and operational reform measures. Key reforms undertaken by the participating States under the scheme are as follows:

i. **Publication of audited annual & quarterly financial accounts.**

ii. **Non-creation of Regulatory Assets (or uncovered losses or any other similar provisions).**

iii. **Tariff subsidy accounting and payment as per Section 65 of the Electricity Act, 2003.**

.....2.

iv. **Subsidy disbursal by State Govt. against loss incurred by distribution utilities in graded manner.**

v. **Issuance of tariff & true-up orders.**

vi. **Preparation and submission of Energy Accounts to Ministry of Power.**

Other initiatives taken to improve financial and operational efficiencies of the distribution utilities:

i. **Revamped Distribution Sector Scheme (RDSS): Government of India launched the scheme in 2021 to help Distribution Utilities improve quality of supply of power through operational efficient and financial viable distribution sector. The scheme is designed to nudge the States/UTs and their utilities to undertake necessary reforms for desired results. Based on performance of the utility against various parameters, the funds are released under the scheme.**

ii. **Late Payment Surcharge Rules notified in 2022: Since the implementation of the Rules, the total legacy dues of Central Sector utilities have reduced from around Rs. 1.4 lakh crores in Jun'22 to around Rs. 18,857 crores in March'25. The current dues are also, generally, being paid regularly. This has helped reduce late payment surcharges levied on Utilities.**

iii. **Effective Subsidy Accounting: Rules and Standard Operating Procedure issued for proper Subsidy Accounting and their timely payment.**

iv. **Tariff Rationalization & Automatic Fuel Cost Pass-Through: To ensure that all prudent cost for supply of electricity is passed through, rules have been notified.**

v. **The Electricity Distribution (Accounts and Additional Disclosure) Rules, 2024, to improve transparency in accounting.**

vi. **Additional prudential norms for lending by Power Finance Corporation Limited and REC Limited.**

(b) : Owing to the positive impact of the scheme and its scheduled completion by FY 25, the need for its continuation and scale-up has been recognized in the Union Budget, FY 26. The scheme of allowing additional borrowing to States has been extended so as to incentivise the States for adoption of electricity distribution reforms and augmentation of intra-state transmission capacity.

(c) : The funds are not sanctioned under the scheme but based on GoI allowing for additional borrowing space of 0.5% of GSDP, the States raise necessary borrowing so as to meet their financial requirements.

.....3.

Details of additional borrowing allowed under the scheme as on 24.03.25 are as under:

Sl. No.	Name of the State	Amount (in Rs. Cr)			
		2021-22	2022-23	2023-24	2024-25
1	Andhra Pradesh	3,716	5,858	6,709	7,986
2	Assam	1,886	2,473	2,702	-
3	Himachal Pradesh	251	-	-	-
4	Kerala	4,060	4,263	4,866	6149
5	Manipur	180	-	213	-
6	Meghalaya	192	-	-	-
7	Odisha	2,725	-	-	-
8	Punjab	-	-	-	1976
9	Rajasthan	5,186	6,122	7,996	7,088
10	Sikkim	191	170	156	-
11	Tamil Nadu	7,054	5,775	9,656	-
12	Uttar Pradesh	6,823	-	-	-
13	West Bengal	6,911	8,352	7,276	-
	Total	39,175	33,013	39,574	23199

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4537
ANSWERED ON 27.03.2025

RURAL ELECTRIFICATION IN ASSAM

4537. SHRI AMARSING TISSO:

Will the Minister of POWER
be pleased to state:

(a) the status of rural electrification in Assam, particularly in Karbi Anglong and Dima Hasao districts including the details of the number of villages yet to be electrified;

(b) the steps taken by the Government to improve the reliability of power supply in remote and tribal areas of Assam;

(c) whether the Government has taken any initiatives to promote renewable energy integration into the State's power grid, and if so, the details thereof;

(d) the details of the funds allocated and utilized for power infrastructure development in Assam during the last five years and the current year; and

(e) whether there are any plans to set up new hydroelectric or solar power projects in Assam, particularly in tribal and hilly areas and if so, the details thereof?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) & (b) : Government of India has been supplementing the efforts of the States through schemes like Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA) and Revamped Distribution Sector Scheme (RDSS), to help them achieve the objective of providing quality and reliable supply of power to all households including remote and tribal areas of Assam.

As reported by the States/UTs, all the inhabited un-electrified census villages in the country were electrified by 28th April, 2018. A total of 2,732 villages were electrified for State of Assam. Under DDUGJY and thereafter under SAUBHAGYA, as reported by all States/UTs, electrification of all willing un-electrified households was completed. A total of 23,26,656 households were electrified for State of Assam. Both the schemes stand closed as on 31.03.2022.

.....2.

Government of India launched the scheme of Revamped Distribution Sector Scheme (RDSS) in July 2021 to improve the quality and reliability of supply of power through operationally efficient and financially viable distribution sector. Under the scheme, projects have been sanctioned for loss reduction infrastructure and smart metering works. For the State of Assam, projects worth Rs. 3,394 Cr and Rs. 4,050 Cr have been sanctioned for loss reduction infrastructure and smart metering works respectively. Execution of these works would help improve quality of supply of power across the State of Assam.

Government of India is supporting the States for grid electrification of households left-out during SAUBHAGYA, under the ongoing scheme of Revamped Distribution Sector Scheme (RDSS), launched in July, 2021. In addition, all households belonging to Particularly Vulnerable Tribal Group (PVTG) identified under PM-JANMAN (Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan) and households belonging to Scheduled Tribes identified under DA-JGUA (Dharti Aaba Janjatiya Gram Utkarsh Abhiyan) are being sanctioned for on-grid electricity connection under RDSS as per the scheme guidelines. So far, works for electrification of 10.19 lakh households have been sanctioned amounting to Rs. 4,643 Cr. under RDSS. The infrastructure works sanctioned for the State of Assam also include works for electrification of 1.27 lakh households.

The details of works sanctioned and executed for the district of Karbi Anglong and Dima Hasao are placed at Annexure-I.

Further, Government of Assam has informed that it has taken up several steps to improve the reliability of power supply like construction of new sub-stations and High Tension (HT) lines and replacement of old and bare conductors with insulated cables under RDSS and Externally Aided Project (EAP) namely *'Assam Distribution System Enhancement and Loss Reduction'* project.

(c) : A robust national grid has been established to facilitate the transfer of power from power surplus regions to power deficit regions. The inter-regional transmission capacity has been increased from 75,050 MW during 2016-17 to 1,18,740 MW as on 31.12.2024. The capacity of National Grid is being expanded on a continuous basis commensurate with the growth in electricity generation and electricity demand. The primary challenges in integrating renewable energy into the grid are intermittency in Renewable Energy (RE) generation, non-availability of adequate flexible resources, etc.

The Government has taken various measures to facilitate the integration of RE resources into the National Grid to ensure reliability and stability as under:

(i) Construction of Intra-State and Inter-State transmission systems for evacuation of Renewable power.

(ii) Transmission plan for integration of more than 500 GW RE capacity by 2030 has been prepared.

.....3.

(iii) Setting up of Regional Energy Management Centers (REMCs) for better forecasting of renewable power and to assist grid operators to manage variability and intermittency of renewable power.

(iv) Innovative products like Solar-Wind Hybrid Projects, RE projects with energy storage systems and supply of RE power balanced with power from non-RE sources launched to reduce intermittency.

(v) Implementation of Green Term Ahead Market (GTAM) and Green Day Ahead Market (GDAM) for sale of renewable energy.

(vi) Waiver of Inter-State Transmission Charges on transmission of electricity generated from RE sources such as Solar, Wind, and Hydro.

(vii) Flexibility in generation and Scheduling of Thermal/Hydro Power Stations through bundling with Renewable Energy and Storage Power. Flexibilization of thermal generation is mandated to address the variability of RE generation.

(viii) Central Financial Assistance (CFA) is being provided to the States for setting up Transmission infrastructure for RE integration within their State under the Green Energy Corridor Scheme.

(ix) CEA (Technical Standards for Connectivity to the Grid) Regulations lay down the minimum technical requirements for the RE generating plants to ensure the safe, secure and reliable operation of the grid. The compliances to the said regulations by RE plants are verified jointly by Central Transmission Utility (CTUIL) and Grid-India / Regional Load Despatch Centres (RLDCs) before granting connectivity/interconnection to the national grid. Robust compliances verification is done before interconnection of any new plant to the grid.

(x) Indian Electricity Grid Code mandates that RE plants participate in the primary and secondary frequency control in case of contingencies. Hybrid RE power plants, Energy Storage Systems such as BESS (Battery Energy Storage System) and PSP (Pump Storage Project) are being promoted for mitigating variability in RE generation and provide adequate frequency support to the grid.

The measures taken by the State of Assam for renewable integration and for promotion of Renewable Energy projects in the State is placed at Annexure-II.

(d) : The details of the Central grant released /utilized during the last five years and the current year in the State of Assam for power infrastructure development is enclosed at Annexure-III.

(e) : As on 28th February, 2025, a cumulative capacity of 578.45 MW Renewable Energy which includes 192.34 MW Solar, 350 MW Large Hydro, 34.11 MW Small Hydro and 2MW Bio-Power has been installed in the state of Assam. Presently, Assam Power Generation Corporation Limited (APGCL) is setting up a Lower Kopili (120 MW) hydroelectric power in Dima Hasao District of Assam. The projects planned in Assam as reported by the State is placed at Annexure-IV.

****

ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 4537 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

Details of works executed under erstwhile scheme of DDUGJY, SAUBHAGYA and sanctioned under RDSS

1. **A total of 650 and 256 villages were electrified under DDUGJY in the districts of Karbi Anglong and Dima Hasao respectively.**

2. **Detail of works undertaken under DDUGJY in the two districts is as below:**

Sl. No.	Items	Units	Karbi Anglong	Dima Hasao
1	Sub-stations (including augmentation)	Nos.	05	01
2	Distribution Transformers	Nos.	2601	332
3	11 kV lines	CKMs	5877.64	816.11
4	LT lines	CKMs	4817.48	471.35
5	33 kV & 66 kV lines	CKMs	48.8	0.8
6	Consumer Energy Meters	Nos.	00	00
7	Distribution Transformers Meters	Nos.	567	300
8	11 kV Feeder Meters	Nos.	13	15

3. **Projects worth Rs 126.46 Cr and Rs. 46.97 Cr have been sanctioned for loss reduction infrastructure works under RDSS for the district of Karbi Anglong and Dima Hasao respectively. The sanctioned works include cabling works, High Voltage Distribution System (HVDS) feeder bifurcation, reconductoring of 11/22kV lines and 33/66kV lines.**

4. **A total 9,011 and 2,604 households were sanctioned under RDSS for the districts of Karbi Anglong and Dima Hasao, respectively.**

****

ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 4537 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

Measures taken in the State of Assam for renewable integration and for promotion of Renewable Energy projects in the State

1. **Under PM Surya Ghar: Muft Bijli Yojana, installation has been done in 8,748 Households in the State of Assam, out of which 5,003 Households have been released subsidy amount of Rs. 4.76 Cr.**

2. **A total of 201 MW of potential sites for Small Hydro Power (SHP) have been identified in the State of Assam, out of which 34.11 MW has been the total installed capacity as of 28.02.2025.**

3. **The cumulative number of Off-Grid Solar Photo Voltaic (SPV) applications installed/distributed as of 28.02.2025 is tabulated below:**

Solar Home Lights (in Nos.)	Solar Lanterns & Lamps (in Nos.)	Solar Street Lights (in Nos.)	Solar Power Packs (in kWp)
46,879	6,47,761	29,538	1,605

4. **The assessed Biomass Power Potential in the State of Assam is 321.89 MWe, out of which, 2 MW of Non-Bagasse Biomass Cogeneration capacity has been installed.**

5. **The State government has notified Assam Integrated Clean Energy Policy 2025 on 24th February 2025 including Green Hydrogen, with a target of 2,000 kTPA (kilo Tonnes Per Annum) in the next five years by harnessing the RE potential and creation of 10,000 jobs per annum for production of Green Hydrogen in the State. It also has a target of commissioning at least one green hydrogen valley to cater to the demand from fertilizer plants and refineries within the state.**

6. **Oil India Limited (OIL) commissioned "India's first 99.999% pure" Green Hydrogen plant in Assam. The pilot plant set up in central Assam's Jorhat has the capacity producing 10 kg of hydrogen per day.**

7. **SGEL Assam Renewable Energy Ltd, a joint venture between SJVN Green Energy Ltd and Assam Power Distribution Co. Ltd, has plan to develop a 25 MW green hydrogen plant within the state of Assam.**

****

ANNEXURE-III

ANNEXURE REFERRED IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 4537 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

Details of Central funds utilized/ released for power infrastructure development in the State of Assam from Central sources during the last five years and the current year

(in Rs. Crore)

Project	2020-21	2021-22	2022-23	2023-24	2024-25*	Total
RDSS - Distribution Infrastructure Works	-	-	10.4	578.7	570.1	1,159.2
NERPSIP	182.6	265.5	131.9	91.9	40.6	712.5
DDUGJY	415.8	339.1	33.8	933.6	0.0	1,722.2
IPDS	118.5	20.5	0.0	13.8	0.0	152.7
SAUBHAGYA	86.4	60.2	26.7	0.0	0.0	173.2
Total	803.2	685.2	202.8	1,617.9	610.7	3,919.9

****Released/ Provisional Figures***

****

ANNEXURE-IV

ANNEXURE REFERRED IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 4537 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

Projects proposed to be set up by the State of Assam

1. **As reported by the State of Assam, the Government of Assam is in the process of setting up a 1000 MWp Solar Project under Mukhya Mantri Sauro Shakti Prokolpo in Karbi Anglong district of Assam.**

2. **The Govt. of Assam has taken up the following projects for generation of solar power in the State of Assam:**

   - **Implementation of 1000 MWp (750 M W_{AC}) Solar Power Plant in the State under "Mukhya Mantri Sauro Shakti Prokolpo" with ADB funds.**

   - **Development of 1000 MW Renewable Power Projects by Joint Venture (JV) of APDCL and SJVN Green Energy Ltd.**

   - **Development of 1000 MW Renewable Power Projects JV of APDCL and NLC India Ltd.**

   - **Setting up of 250 MW Battery Energy Storage System (BESS) JV of APDCL and ONGC Tripura Power Company Ltd.**

   - **Procurement of 70 M W Solar power from Grid Connected Ground Mounted Solar PV Project to be developed under Build-Own-Operate (BOO) mode by SJVN.**

   - **Procurement of 50 M W Solar power from Grid Connected Ground Mounted Solar PV Project to be developed under Build-Own-Operate (BOO) mode by SJVN.**

   - **Procurement of 200 M W Solar power from Grid Connected Ground Mounted Solar PV Project to be developed under Build-Own-Operate (BOO) mode by SJVN.**

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4538
ANSWERED ON 27.03.2025

CSR FUNDING BY PUBLIC SECTOR POWER COMPANIES

4538. SHRI ANAND BHADAURIA:

Will the Minister of POWER be pleased to state:

(a) the details of Corporate Social Responsibility (CSR) funding by the public sector power companies during the last five years, company and year-wise;

(b) the details of the recipients of CSR funding by the public sector power companies during the last five years, company and year-wise;

(c) the details of the criteria adopted to select recipients for CSR funds from the public sector power companies, company-wise; and

(d) the details of the irregularities reported in selection of the recipients for CSR funds from the power companies during the last five years, company and year-wise?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : The details of the Corporate Social Responsibility (CSR) funding by Central Public Sector Enterprises (CPSEs) under Ministry of Power (MoP) during the last five years are given below:

(Rs. in Crore)

Central Public Sector Enterprises	2019-20	2020-21	2021-22	2022-23	2023-24
NTPC Limited	304.90	418.80	356.70	315.30	425.70
Power Grid Corporation of India Limited	346.21	240.48	271.14	321.66	330.48
PFC Limited	121.30	216.34	130.88	178.58	215.39
REC Limited	258.40	144.32	167.22	204.31	242.16
NHPC Limited	126.43	79.63	105.29	127.31	85.73
SJVN Limited	36.35	52.87	51.67	59.84	45.96
THDCIL	21.62	23.11	27.21	23.61	34.47
North Eastern Electric Power Corporation Limited (NEEPCO)	12.37	7.28	5.46	5.19	7.63
Grid Controller of India Limited	1.21	1.34	1.21	1.07	1.11
Total	1228.79	1184.17	1116.78	1236.87	1388.63

.....2.

(b) : The details of recipients of CSR funding by CPSEs under MoP during last five years are available on the respective websites of CPSEs i.e. https://ntpc.co.in, https://www.powergrid.in, https://www.pfcindia.com, https://recindia.nic.in, https://www.nhpcindia.com, https://sjvn.nic.in, https://www.thdc.co.in, https://neepco.co.in & https://posoco.in.

(c) : CPSEs undertake CSR activities under the heads identified under Schedule VII of the Companies Act, 2013 with special focus on Health (Nutrition, Sanitation, and Drinking Water), Education, Skill Development, Rural Development, Women Empowerment, Environment Oriented Initiatives, Care for the Elderly, Differently-abled Persons, promoting sports activities, contribution to PM CARES Fund, Research & Development, contribution to education institutions, disaster management etc.

CSR funding is a Board-driven process and the Board of the company is empowered to plan, approve, execute, and monitor the CSR activities based on the recommendations of its CSR Committee as per Section 135 of the Companies Act, 2013, CSR policy of respective CPSE, DPE guidelines & amendments issued from time to time in this regard. The CSR activities are undertaken by CPSEs by themselves or through agencies/Department of Central/State Governments.

(d) : No irregularity is reported in selecting recipients of CSR funding by CPSEs under MoP. However, complaints of irregularities, if any, received in respect of CSR implementation are processed in accordance with extant rules/ policies/guidelines through standard procedures along with reference to terms and conditions of Memorandum of Understanding/work order etc. for that project.

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4548
ANSWERED ON 27.03.2025

NATIONAL CONFERENCE ON SUSTAINABLE COOLING AND ENERGY EFFICIENCY

4548. SHRI BASAVARAJ BOMMAI:

Will the Minister of POWER be pleased to state:

(a) whether the Government has recently organized a National Conference on Sustainable Cooling and Energy Efficiency Improvement; and

(b) if so, the details thereof?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) & (b) : Bureau of Energy Efficiency organized the two day National conference on "Sustainable Cooling and Doubling the Rate of Energy Efficiency Improvement" in February, 2025. The conference outcome is a suggested roadmap to double rate of energy efficiency improvement by 2030 through key interventions across all demand sectors including transition to Sustainable Cooling.

Further, consensus emerged during the above conference that the target of doubling energy efficiency improvement rate would be met through gradual improvement by the year 2030.

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4558
ANSWERED ON 27.03.2025

SUDDEN DIP IN SOLAR POWER PRODUCTION CAPACITY

4558. SHRI CHAVAN RAVINDRA VASANTRAO:
SHRI DHAIRYASHEEL SAMBHAJIRAO MANE:
SHRI SUDHEER GUPTA:

Will the Minister of POWER
be pleased to state:

(a) whether clouds over vast swathes has resulted in sudden dip in solar power production capacity in the country during the last few months raising worries about the stability of powergrids and if so, the details thereof;

(b) whether sudden dip due to low production and surge in power due to over production can damage the power grid and sometimes lead to spark and fires in the grid;

(c) if so, the details thereof and safety preventive measures taken by the Government in this regard;

(d) the steps taken/being taken by the Government to strike balance between renewable source of energy and other conventional source of energy so that the distribution of power may not be affected in the near future; and

(e) whether Grid India is working with several stakeholders to improve weather forecast required for renewable power generation and if so, the details thereof?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : There have been few instances of sudden dip in solar power generation in the country in recent months. The details of dip in Solar Power generation during past three months (December, 2024 to February, 2025) are given at Annexure.

(b) & (c) : Sudden dip in solar generation leads to demand-supply gap resulting in low frequency & localised high voltages in grid. Similarly, sudden ramp up in solar generation after clearance of cloud cover may lead to high frequency & localised low voltages in grid. The demand supply gap due to change in renewable generation have to be compensated by other generating resources for frequency control and reactive power support. In this regard, following preventive measures have been taken :

(i) Automatic Generation Control (AGC) maintains frequency stability by sending Secondary Reserve Ancillary Services (SRAS) Up or Down signals every 4 seconds to AGC-enabled thermal and hydro power plants.

(ii) During dip in RE generation, additional generation from thermal based power plants under Tertiary Reserve Ancillary Services (TRAS) is provided to maintain frequency in the band as defined in the Indian Electricity Grid Code (IEGC).

(iii) Mode of Pump Storage plants are also changed to support active power.

(iv) The generators with high ramp rate viz hydro/ gas are also brought on bar to maintain load generation balance.

.....2.

(v) Renewable Energy (RE) Plants are also instructed to revise schedule promptly.

(vi) Reactor switching is done so as to keep Voltages in RE plants within desired range for secure & reliable grid operation.

(vii) Mode of operation of RE Plants/Reactive Power compensation devices are also changed as per Reactive Power requirement of the grid.

(viii) Reactive Power support is also taken from on bar thermal, hydro and nuclear generators.

(d) : The Government of India has recognised the need for striking a balance between Renewable Source of Energy and Conventional source of energy to meet the growing power demand. As per National Electricity Plan (NEP) prepared by CEA, GoI has targeted 874 GW installed capacity by 2031-32. This includes capacity of 304 GW from conventional sources - Coal, Lignite, Gas, Nuclear and 570 GW from renewable sources - Solar, Wind, Biomass and Hydro. To achieve these targets, Government of India has initiated following capacity addition programme:

(i) Government of India has proposed in November 2023 for setting up of an additional minimum 80,000 MW coal based capacity by 2031-32. Against this target, coal based capacity of 9,350 MW has already been commissioned in 2023-24 & 2024-25. 32,300 MW Thermal Capacity is under construction and contracts for 23,440 MW thermal capacity have been awarded in FY 2024-25. Further, 35,180 MW of coal and lignite based candidate capacity has been identified which is at various stages of planning in the country.

(ii) 13,997.5 MW of Hydro Electric Projects are under construction. Further, 24,225.5 MW of Hydro Electric Projects are under various stage of planning and targeted to be completed by 2031-32.

(iii) 7,300 MW of Nuclear Capacity is under construction and targeted to be completed by 2029-30. 7,000 MW of Nuclear Capacity is under various stages of planning and approval.

(iv) 1,53,920 MW Renewable Capacity including 84,310 MW of Solar, 28,280 MW of Wind and 40,890 MW Hybrid power is under construction while 70,210 MW of Renewable Capacity including 46,670 MW of Solar, 600 MW of Wind and 22,940 MW Hybrid Power is at various stages of planning and targeted to be completed by 2029-30.

(v) In energy storage systems, 13,050 MW/78,300 MWh Pumped Storage Projects (PSPs) are under construction/concurred and 14,970 MW/54,803 MWh Battery Energy Storage System (BESS) are currently under various stages of construction/bidding.

Further, following measures have been taken to ensure reliability and stability of the National Grid: -

(i) Development of intra-state transmission network is being planned to keep pace with RE capacity addition. Strong inter connection of ISTS RE schemes with the intra-state network to ensure better reliability in terms of anchoring voltage stability, angular stability, losses reduction etc. is being done.

(ii) Central Financial Assistance (CFA) is being provided to the States for setting up Transmission infrastructure for RE integration within their State under the Green Energy Corridor Scheme.

(iii) Resource Adequacy Plan (RAP) has been prepared and both Long Term (LTRAP) & Short Term (STRAP) have been mandated. This would bring requirements of peaking and flexible resources to balance the demand and supply in all time blocks.

(iv) Encouraging setting up of RE projects with storage facilities for optimal utilisation of transmission facilities.

(v) Flexibilization of thermal generation is mandated to address the variability of RE generation.

.....3.

(vi) CEA (Technical Standards for Connectivity to the Grid) Regulations lay down the minimum technical requirements for the RE generating plants to ensure the safe, secure and reliable operation of the grid. The compliances to the said regulations by RE plants are verified jointly by Central Transmission Utility (CTUIL) and Grid-India/RLDCs before granting connectivity/interconnection to the national grid. Robust compliances verification is done before interconnection of any new plant to the grid.

(vii) Indian Electricity Grid Code mandates that RE plants participate in the primary and secondary frequency control in case of contingencies. Hybrid RE power plants, Energy Storage Systems such as BESS (Battery Energy Storage System) and PSP (Pump Storage Project) are being promoted for mitigating variability in RE generation and provide adequate frequency support to the grid.

(viii) Establishment of 13 No. of Renewable Energy Management Centres (REMC) in RE rich States and Regions for dedicated monitoring, forecasting and scheduling of Solar and Wind plants.

(e) : Ministry of Power (MoP) and Ministry of Earth Sciences (MoES) have been interacting very closely and regularly to ensure sharing of accurate weather data with stakeholders for RE generation forecasting. As a result of close coordination between the two Ministries, India Meteorological Department (IMD), National Centre for Medium Range Weather Forecasting (NCMRWF) and Indian Space Research Organisation (ISRO) are sharing weather forecast data with various stakeholders which is being utilised for Renewable Energy (RE) and demand forecasting. Further, Weather data of all Inter State Transmission System (ISTS) connected RE Plants is being shared by Grid-India with NCMRWF four times a day through secure API (Application Programming Interface) for improving weather forecast.

Ministry of Power has modified the guidelines for tariff based competitive bidding process for procurement of power from grid connected Solar PV power projects on 12th Feb 2025. The amended bidding guidelines mandate the developers to install and maintain GPS enabled Automatic Weather Station (AWS) as per the technical specifications and standards specified by relevant central government agency. Availability of weather measurements from AWS placed at the RE complex will further enhance the quality of weather forecasting for all stakeholders.

In addition, IIT Bombay has been engaged for development of indigenous RE Forecasting Tool.

****

ANNEXURE

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4558 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

The details of dip in Solar Power generation during past three months (December, 2024 to February, 2025):

Date	All India Solar generation (MU)	% Dip from previous day
26-Dec-24	227.33	-19.5
27-Dec-24	222.41	-2.16
11-Jan-25	301.1	-15.36
18-Feb-25	447.14	-4.16
19-Feb-25	406.41	-9.11
25-Feb-25	382.64	-18.96

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4563
ANSWERED ON 27.03.2025

DIBANG MULTIPURPOSE PROJECT

4563. SHRI TAPIR GAO:

Will the Minister of POWER
be pleased to state:

(a) the details of the steps taken/being taken to ensure compliance with the MoU signed on 24June 2007 between the Government of Arunachal Pradesh and National Hydro-electric Power Corporation (NHPC) for the Dibang Multipurpose Project;

(b) the details of the Class III & IV (C & D) staff recruited from the local tribal population and executive cadre positions deployed on deputation basis from the State Government;

(c) the details of the contracts (excluding major/specialized works) awarded to local contractors; and

(d) the details of quantities of locally produced/manufactured materials procured monthly and annually?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : Government of India granted approval for implementation of Dibang Multipurpose Project (2880 MW) in Arunachal Pradesh to NHPC Ltd. on 27th February 2023, after obtaining all necessary clearances following due procedures. The project is now under implementation stage.

(b): Regarding the recruitment of staff from the local tribal population, NHPC has informed that there is currently surplus manpower in workmen cadre at NHPC. Consequently, no recruitment has been made for Class III & IV ((C & D) staff positions.

Further, at this stage, only civil works related to powerhouse, river diversion and road & bridge construction have commenced at the site. At present, no State Government officials have been deputed to the executive cadre so far.

(c) & (d) : In compliance with the MoU provisions, NHPC is awarding works and service contracts to local contractors. The details of these contracts (excluding major/specialized works) are enclosed as Annexure. Furthermore, locally produced/ manufactured materials are being procured as and when required.

****

ANNEXURE REFERRED IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO. 4563 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

	Details of the contracts (works/services) awarded to Local contractors				
Sr. No.	**Form of Contract**	**Name of work(s)/ Service(s)**	**Name of Contractor**	**Contract/Awarded Amount**	**LOCAL/ PAF**
	2019- 2020				
1	Work	Construction of Proposed Spur at the Left bank of River Sirki to protect the right bank approach road to dam site of Dibang Multipurpose Project, Arunachal Pradesh.	M/s. RR Projects Vill-Ezengo, P.O/P.S-Roing, District-Lower Dibang Valley Arunachal Pradesh-792110	Rs.13,47,840	LOCAL
2	Work	Construction of Proposed Spur at the Right bank of River Sirki to protect the right bank approach road to dam site of Dibang Multipurpose Project, Arunachal Pradesh.	M/s. RR Projects Vill-Ezengo, P.O/P.S-Roing, District-Lower Dibang Valley Arunachal Pradesh-792110	Rs15,55,200.00	LOCAL
	2020-2021				
1	Service	Hiring of 01 no. Mahindra Bolero (OPT) BS-6 or higher version for a period of 02 (Two) years with driver and with fuel for deployment at Dibang Multipurpose Project, NHPC Ltd, Roing, Arunachal Pradesh."	M/s. JM Tradewings, Cheta-II, PO/PS Roing, Lower Dibang Valley district, Arunachal Pradesh Kind Attention: Sh. JIBANI MIKHU (Proprietor) e-mail: jmtradewings@gmail.com	Rs. 13,94,604.00	LOCAL
2	Service	Hiring of 01 no. Mahindra Bolero (OPT) BS-6 or higher version for a period of 02 (Two) years with driver and with fuel for deployment at Dibang Multipurpose Project, NHPC Ltd, Roing, Arunachal Pradesh."	M/s. RR Projects Vill-Ezengo, P.O/P.S-Roing, District-Lower Dibang Valley Arunachal Pradesh-792110	Rs. 13,94,604.00	LOCAL
	2021-2022				
1	Work	Painting and minor repairs work of Executive Field Hostel (1st floor of DS Hotel &Resort) at Roing.	M/s. Minti Enterprises, Agamgite,PO/PS- Roing, Dist.- Lower Dibang Valley Arunachal Pradesh-792110 Email Id:amindarin@gmail.com	Rs. 1,16,471.00	LOCAL
2	Service	Hiring of 01 no. Scorpio S3 BS6 or Higher version and 01 no. PICKUP 4X4 (Single Cabin) or Higher version with driver but without fuel for 24 months for deployment at Dibang Multipurpose Project, NHPC Ltd, Roing, Arunachal Pradesh.	M/s ELISHA LINGGI, Asali, PO/PS-Roing, Lower Dibang Valley district-792110, Arunachal Pradesh Kind Attention: Sh. ELISHA LINGGI (Proprietor) e-mail: elisharoing@gmail.com	Rs.28,12,248.00 excluding GST	LOCAL
3	Service	Hiring of 01 no. Bolero Camper 4WD PS (Double Cabin) or Higher version with driver but without fuel for 24 months for deployment at Dibang Multipurpose Project, NHPC Ltd, Roing, Arunachal Pradesh	M/s. JM Tradewings, Cheta-II, PO/PS Roing, Lower Dibang Valley district, Arunachal Pradesh Kind Attention: Sh. JIBANI MIKHU (Proprietor) e-mail: jmtradewings@gmail.com	Rs.10,44,000.00 excluding GST	LOCAL
	FY-2022-2023				
1	Service	Hiring of 02 no. Mahindra Bolero B6 (O) with driver but without fuel for 24 months for deployment at Dibang Multipurpose Project, NHPC Ltd, Roing, Arunachal Pradesh	Sh. RAJEN DELE, Brilli Basti, Roing Circle, Lower Dibang Valley, Arunachal Pradesh-792110	Rs.24,37,042.00 (Rs.12,18,521.00+ Rs.12,18,521.00) only including driver & GST@5%.	PAF
2	Service	Hiring of 01 no. Toyota Innova Crysta 2.4 ZX MT with driver but without fuel for 24 months for deployment at Dibang Multipurpose Project, NHPC Ltd, Roing, Arunachal Pradesh	M/s T. M , Construction, PO & PS Anini, Arunachal Pradesh	Rs.25,19,496.00 only including driver & GST@5%.	PAF
3	Work	Renovation and Repair of Punjabi Camp at Dam site area of Dibang Multipurpose Project, Arunachal Pradesh	M/s R.M Enterprise, Brinli,Hunli, Lower Dibang Valley District, Arunachal Pradesh-792110	Rs 4,92,578.00	LOCAL

4	Work	Strengthening of Guage and discharge sites for measurement of water level of Dibang river and installation automatic water level Recoder (AWLR) at early warming system site and Dam site in DMP,(A.P)	M/s Minti Enterprises, Agamgite, Lower Dibang Valley, District, Arunachal Pradeah -792110, Email: amindarin@gmail.com	Rs 2,52,464.00	LOCAL
5	Work	Construction/Part-modification of Boys Hostel of ITI Complex, Roing, Arunachal Pradesh	M/s DIBANG ENTERPRISES, Cheta-I, Roing, PO/PS-Roing, Lower Dibang Valley District-792110, Arunachal Pradesh Email: ekipimiuli@ymail.com	Rs.25,74,881.00	LOCAL
8	Service	Providing R&M services in various field hostels at Dibang Multipurpose Project, Roing, Arunachal Pradesh	M/S AMAZING MOUNTAIN ROCKS, ROING, LOWER DIBANG VALLEY, ARUNACHAL PRADESH, PIN-792110	Rs. 46,70,649.00	LOCAL
9	Service	Providing service of Running and Maintenance of electrical and IT communication systems of Dibang Multipurpose Project for a period of one year	M/s HM Frontier, Village: Abango, PO&PS: Roing, Dist: Lower Dibang, Ar.P-792110	Rs. 41,71,525.00	LOCAL
10	Service	Providing Services for Running & Maintenance of Departmental vehicle and Heavy Equipment of Mechanical and Transport Division of Dibang Multipurpose Project both at Roing and Sites for a period of 12 months	M/S DD ENTERPRISE, ROING, LOWER DIBANG VALLEY, ARUNACHAL PRADESH, PIN- 792110	Rs. 29,50,615.00	LOCAL
11	Service	PROVIDING R&M SERVICES Office Complex and adjoining areas to maintain and running of system at Dibang Multipurpose Project, Roing, Arunachal Pradesh	M/s Minti Enterprises, Agamgite, Lower Dibang Valley, District, Arunachal Pradeah -792110, Email: amindarin@gmail.com	Rs. 57,29,489.00	LOCAL
12	Service	Providing Running and Maintenance services of various site camps, survey and other necessary works of Dam and Power House Division of Dibang Multipurpose Project, Arunachal Pradesh	M/S EASTERN ENTERPRISES, CHETA, PO/PS ROING, LOWER DIBANG VALLEY, ARUNACHAL PRADESH, PIN-792110	Rs. 44,49,753.00	LOCAL
	FY-2023-2024				
1	Service	Hiring of one(01) no. Mahindra Scorpio Model Classic S MT7S or higher with driver without fuel for 24 months for deployment at Dibang Multipurpose Project, NHPC Ltd, Roing, Arunachal Pradesh	M/s CHIMBU LINGGI, New Endolin, Anini, Dibang Valley, Ar.P-792101	Rs 14,41,200.00	PAFs
2	Service	Providing Two (02) nos. Mahindra Bolero model B4 or higher with driver without fuel for 24 months for deployment at Dibang Multipurpose Project, NHPC Ltd, Roing, Arunachal Pradesh	M/S ELISHA LINGGI, Roing, Lower Dibang Valley, Ar.P-792110	Rs. 23,35,200	PAFs
3	Service	Providing One (01) no. Mahindra Bolero model B4 or higher & One (01) no Mahindra camper (4WD) with Driver but without fuel for 24 months for deployment at Dibang Multipurpose Project, NHPC Ltd, Roing, Arunachal Pradesh	M/s CHIMBU LINGGI, New Endolin, Anini, Dibang Valley, Ar.P-792101	Rs.23,04,480	PAFs
4	Service	Providing services for Running & Maintenance of Medical division of Dibang Multipurpose Project, Arunachal Pradesh for 12 months	L. D. ENTERPRISE, New Lekope, New Lekope Hunli, Lower Dibang valley, ARUNACHAL PRADESH-792110	Rs.24,32,434.4	LOCAL
5	Works	Construction of Temporary D.G. Shed at Chimri colony, Dibang Multipurpose Project, Roing, Lower Dibang Valley, Arunachal Pradesh	M/s RR Projects, Ezengo, PO/PS-Roing, PO/PS- Roing, Dist.- Lower Dibang Valley Arunachal Pradesh-792110	Rs.20,01,610.00	LOCAL
6	Service	Hiring of Two (02) nos. Mahindra Scorpio Model Classic S Diesel or higher/ equivalent with driver for Dibang Multi-Purpose Project, Roing	M/S IMBEY MITO, Lower Dibang valley, ARUNACHAL PRADESH-792110,	Rs.26,88,000	PAFs

7	Service	Hiring of One (01) no. Mahindra Bolero model B4(Diesel) or higher with driver	Sh. RAJEN DELE, Brilli Basti, Roing Circle, Lower Dibang Valley, Arunachal Pradesh-792110	Rs.11,14,320	PAFs
8	Service	Hiring of One (01) no. Mahindra Bolero model B4(Diesel) or higher with driver	Sh. RAJEN DELE, Brilli Basti, Roing Circle, Lower Dibang Valley, Arunachal Pradesh-792110	Rs.11,69,280	PAFs
	FY-2024-2025				
1	Works	Construction of 06 blocks (each block consisting of 04 No. rooms) of temporary building at Munli right bank, New Apali and at various places, Dibang Multipurpose Project, Arunachal Pradesh.	M/s R.R. Projects Ezengo, Roing A-Sector, P.O./P.S. Naharlagun, Dist. – Lower Dibang Valley, Arunachal Pradesh-792110	₹ 1,09,40,373.00	LOCAL
2	Works	Providing and laying boulder apron in wire crates at Cheko Nallah along Permanent boundary wall of NHPC Chimri colony land	M/s K.L. ENTERPRISES, EZENGO, PO/PS- ROING, Lower Dibang Valley, Ar. P	₹ 11,58,693.00	PAFs
3	Works	Internal electrification of temporary residential and office establishments at Right Bank Munli Camp, 2880 MW Dibang Multipurpose Project	M/S J.N Traders, Po: Hunli - Deshali, Lower Dibang Valley, Ar. P.	₹ 8,30,226.00	LOCAL
4	Works	Providing and fixing Split Bamboo fencing around main office complex of Dibang Multipurpose Project, NHPC Ltd, Roing, Lower Dibang Valley, Arunachal Pradesh	M/s Chumi Enterprises Cheta-1, PO/PS- Roing Lower Dibang Valley, Arunachal Pradesh	₹ 2,00,000.00	PAFs
5	Service	Hiring of 03 nos. Bolero Vehicle for locals including PAFs of DMP for 02 years. (Hiring of Three (03) nos. Mahindra Bolero model B4 (Diesel) or higher with driver and with fuel (reimbursable) for two years").	M/s KENZING GAMNO kalek, Roing, Lower Dibang valley, Arunachal Pradesh-792110	₹ 35,28,000.00	PAFs
6	Service	Hiring of 02 nos. Bolero Vehicle for locals including PAFs of DMP for 02 years. (Hiring of Two (02) nos. Mahindra Bolero model B4 (Diesel) or higher with driver and with fuel (reimbursable) for two years".)	M/s ANGGUM ENTERPRISES Bolung, Roing, Lower Dibang valley, Arunachal Pradesh-792110	₹ 22,08,000.00	PAFs
7	Service	Hiring of 03 nos. Bolero Vehicle for locals including PAFs of DMP for 02 years. (Hiring of Three (03) nos. Mahindra Bolero model B4 (Diesel) or higher with driver and with fuel (reimbursable) for two years").	M/s L. D. ENTERPRISE New Lekope,New Lekope Hunli,Lower Dibang valley, ARUNACHAL PRADESH-792110	₹ 35,99,928.00	PAFs
8	Service	Hiring of Three (03) nos. Mahindra Scorpio N Model Z2 (Diesel) or higher with driver and with fuel (Reimbursable) for two years.	M/s GEETHI MILI Mayu-I,Roing,Roing, Lower Dibang valley, ARUNACHAL PRADESH-792110, -	₹ 45,00,000.00	PAFs
9	Service	Providing services for Running & Maintenance of Land Acquisition, R&R and Environment divisions of Dibang Multipurpose Project, Arunachal Pradesh for 12months	M/s KEPANG TRADERS E-8,REMI,DAMBUK Lower Dibang valley, ARUNACHAL PRADESH-792110	₹ 41,74,108.00	Local
10	Service	Providing Running and Maintenance Services in Various Field Hostels at Dibang Multipurpose Project, Roing, Arunachal Pradesh.	M/s hm frontier Abango, Roing, LOWER DIBANG VALLEY, ARUNACHAL PRADESH-792110, India	₹ 56,95,105.00	Local
11	Service	Providing services for Running & Maintenance of Electrical division of Dibang Multipurpose Project, Arunachal Pradesh for 12months	M/s BOMI TUYIR CONSTRUCTIONS BOMJIR,BOMJIR,Lower Dibang valley, ARUNACHAL PRADESH-792110	₹ 37,70,669.00	Local

12	Service	Providing services for Running & Maintenance of IT&C division of Dibang Multipurpose Project, Arunachal Pradesh for 12months	M/s BOMI TUYIR CONSTRUCTIONS BOMJIR, BOMJIR, Lower Dibang valley, ARUNACHAL PRADESH-792111	₹ 15,31,051.00	Local
	Work order				
13	Service	Hiring of MAHINDRA BOLERO B6 BS-VI on work order basis.	M/S ANITA DELE	₹ 5,28,000.00	PAFs
14	Service	Hiring of MAHINDRA BOLERO B6 BS-VI on work order basis.	M/S ANITA DELE	₹ 5,28,000.00	PAFs
15	Service	Hiring of SCORPIO-N D MT on work order basis.	M/S YUPI POCHA	₹ 6,72,000.00	PAFs
16	Service	Hiring of MAHINDRA BOLERO NEO N10 on work order basis.	M/S SINE MEGA	₹ 5,28,000.00	PAFs
17	Service	Hiring of MAHINDRA BOLERO NEO N10 on work order basis.	M/S SINE MEGA	₹ 5,28,000.00	PAFs
18	Service	Hiring of SCORPIO CLASSIC S MT 9S on work order basis.	M/S Apomo Lingi	₹ 6,72,000.00	PAFs
19	Service	Hiring of SCORPIO CLASSIC 2.2 S MT BS VI on work order basis.	M/S Apomo Lingi	₹ 3,18,000.00	PAFs
20	Service	Hiring of MAHINDRA SCORPIO S10 on work order basis.	M/S Apomo Lingi	₹ 3,18,000.00	PAFs
21	Service	Hiring of INNOVA CRYSTA 2.4GX/FORTUNER on work order basis.	M/S Linggi Lemo Enterprise	₹ 5,10,000.00	PAFs
22	Work	Providing and fixing split bamboo fencing around new office at Munli Right bank for site office of Dibang Multipurpose Project, NHPC Ltd	M/s Chumi Enterprises Cheta-1, PO/PS- Roing Lower Dibang Valley, Arunachal Pradesh	₹ 2,40,207.00	PAFs
23	Work	Construction of platform for portable container at New Apali (Pathar Camp, DMPP Arunachal Pradesh	M/S Drengo Construction, Anini, Dibang Valley Arunachal Pradesh	₹ 9,54,613.00	PAFs

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4566
ANSWERED ON 27.03.2025

CAPACITY OF HYDROPOWER PROJECTS

†4566. SHRI TRIVENDRA SINGH RAWAT:

Will the Minister of POWER
be pleased to state:

(a) whether the total installed capacity of hydroelectric projects currently operating in the country, State-wise, if so, the details thereof;

(b) the details of the number of new hydroelectric projects proposed to be established during the next five years and their estimated production capacity; and

(c) whether the employment and development opportunities being provided to local communities through these projects, if so, the details thereof?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : The installed capacity of Hydro Electric Projects (HEPs) (> 25 MW) in the country is about 42,222 MW. Details are at Annexure-I.

(b) : As per Central Electricity Authority, 36 nos. of HEPs with aggregate installed capacity of 12,689 MW are under capacity addition plan till 2029-30. Details are at Annexure-II.

(c) : The employment and development opportunities are being provided to Project Affected Families (PAFs) and local communities under various measures as outlined below:

i. **1% free power 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.**

ii. **Budgetary support towards cost of enabling infrastructure, i.e. roads, bridges, ropeways, railway siding, communication infrastructure and transmission line. It improves infrastructure in the remote and hilly project locations.**

iii. **Direct employment under Resettlement & Rehabilitation (R&R) Scheme as well as indirect employment through contract labours engaged by the contractors who are awarded Running & Maintenance/Service Contracts.**

iv. **Allocation of CSR funds for infrastructure development in local area, including development / renovation of schools, hospitals, roads, water supply schemes, community halls, street lighting, community toilets etc.**

****

ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4566 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

List of Hydro Electric Projects in the Country

Sl. No.	State	Sector	Agency	Station	Installed Capacity (As on 28.02.2025) (MW)
1	Andhra Pradesh	State	APGENCO	Lower Sileru	460
2				N J Sagar RBC & EXT.	90
3				N J Sagar TPD	50
4				Srisailam	770
5				Upper Sileru-I&II	240
				Total (Andhra Pr.)	1610
6	Arunachal Pradesh	Center	NEEPCO LTD	Kameng	600
7				Pare	110
8				Ranganadi	405
				Total (Ar. Pr.)	1115
9	Assam	Center	NEEPCO LTD	Khandong	50
10				Kopoli	200
11		State	APGCL	Karbi Langpi	100
				Total (Assam)	350
12	Chhatisgarh	State	CSPGCL	Hasdeobango	120
				Total (Chhatisgarh)	120
13	Gujarat	State	GSECL	Ukai	300
14			SSNNL	Sardar Sarovar CHPH	250
				Total (Gujarat)	550
15	Himachal Pradesh	Center	BBMB	Bhakra Left	630
16				Bhakra Right	785
17				Dehar	990
18				Pong	396
19			NHPC LTD	Baira Siul	180
20				Chamera-I	540
21				Chamera-II	300
22				Chamera-III	231
23				Parbati-III	520
24			NTPC LTD	Koldam	800
25			SJVN LTD	Nathpa Jhakri	1500
26				Rampur	412
27		Private	ADHPL	Allain Duhangan	192
28			EPPL	Malana-II	100
29			GBHPPL	Budhil	70
30			GMR	Bajoli Holi	180
31			HSPCL	Sorang	100
32			IAEPL	Chanju-I	36
33			JSW ENERGY	Baspa	300
34				Karcham Wangtoo	1045
35			MPCL	Malana	86
36		State	HPPCL	Integrated Kashang	195
37				Sainj	100

38				Sawra Kuddu	111
39			HPSEBL	Bassi	66
40				Giri Bata	60
41				Larji	126
42				Sanjay	120
43			PSPCL	Shanan	110
				Total (H.P.)	10281
44	Jammu & Kashmir	Center	NHPC LTD	Dulhasti	390
45				Kishanganga	330
46				Salal-I&II	690
47				Sewa-II	120
48				Uri-I	480
49				Uri-II	240
50		State	JKSPDCL	Baglihar-I	450
51				Baglihar-II	450
52				Lower Jhelum	105
53				Upper Sindh-II	105
				Total (J&K)	3360
54	Jharkhand	Center	DVC	Panchet	80
55		State	JUUNL	Subernrekha-I	65
56				Subernrekha-II	65
				Total (Jharkhand)	210
57	Karnataka	State	APGENCO	Hampi	36
58				T B Dam	36
59			KPCL	Almatti	290
60				Bhadra	26
61				Gerusoppa(Sharavathy Tail Race)	240
62				Ghat Prabha	32
63				Kadra	150
64				Kalinadi (Nagjhari)	900
65				Kalinadi (Supa)	100
66				Kodasali	120
67				Lingnamakki	55
68				Mahatma Gandhi (Jog)	139
69				Munirabad	28
70				Sharavathy	1035
71				Sivasamundrum	42
72				Varahi	460
				Total (Karnataka)	3689
73	Kerala	State	KSEBL	Idamalayar	75
74				Idukki	780
75				Kakkad	50
76				Kuttiyadi	75
77				Kuttiyadi Additional Extn.	100
78				Kuttiyadi Extn.	50
79				Lower Periyar	180
80				Nariamangalam	52.65
81				Pallivasal	37.5
82				Panniar	30
83				Poringalkuttu	32
84				Sabirigiri	300
85				Sengulam	48
86				Sholayar	54

87				Thottiyar	40
				Total (Kerala)	1904
88	Ladakh	Center	NHPC LTD	Chutak	44
89				Nimoo Bazgo	45
				Total (Ladakh)	89
90	Madhya Pradesh	Center	NHDC	Indira Sagar	1000
91				Omkareshwar	520
92		State	MPPGCL	Bansagar Tons-I	315
93				Bansagar Tons-II	60
94				Bansagar Tons-III	30
95				Bargi	90
96				Gandhi Sagar	115
97				Madhikhera	60
98				Rajghat	45
				Total (M.P)	2235
99	Maharastra	Private	DLHP	Bhandardhara St-II	34
100			TPCL	Bhira	150
101				Bhivpuri	75
102				Khopoli	72
103		State	MAHAGENCO	Bhira Tail Race	80
104				Koyna DPH	36
105				Koyna-I&II	600
106				Koyna-III	320
107				Koyna-IV	1000
108				Tillari	60
109				Vaitarna	60
110			MPPGPCL	Pench	160
				Total (Maharashtra)	2647
111	Manipur	Center	NHPC LTD	Loktak	105
				Total (Manipur)	105
112	Meghalaya	State	MePGCL	Kyrdemkulai	60
113				Myntdu St-I	126
114				New Umtru	40
115				Umiam St. I	36
116				Umiam St. IV	60
				Total (Meghalaya)	322
117	Mizoram	Center	NEEPCO LTD	Tuirial	60
				Total (Mizoram)	60
118	Nagaland	Center	NEEPCO LTD	Doyang	75
				Total (Nagaland)	75
119	Odisha	State	APGENCO	Machkund	114.75
120			OHPC	Balimela	510
121				Hirakud (Chiplima)	72
122				Hirakud (Burla)	287.8
123				Rengali	250
124				Upper Indravati	600
125				Upper Kolab	320
				Total (Odisha)	2154.55
126	Punjab	Center	BBMB	Ganguwal	77.65
127				Kotla	77.65
128		State	PSPCL	Anandpur Sahib-I	67
129				Anandpur Sahib-II	67
130				Mukerian-I	45
131				Mukerian-II	45

132				Mukerian-III	58.5
133				Mukerian-IV	58.5
134				Ranjit Sagar	600
				Total (Punjab)	1096
135	Rajasthan	State	RRVUNL	Jawahar Sagar	99
136				Mahi Bajaj-I	50
137				Mahi Bajaj-II	90
138				R P Sagar	172
				Total (Rajasthan)	411
139	Sikkim	Center	NHPC LTD	Rangit	60
140				Teesta-V	510
141		Private	DEPL	Jorethang Loop	96
142			GIPL	Chuzachen HEP	110
143			MBPCL	Rongnichu	113
144			SEPL	Tashiding	97
145			SNEHA KINETIC	Dikchu	96
146		State	SUL	Teesta-III	1200
				Total (Sikkim)	2282
147	Tamil Nadu	State	TANGEDCO	Aliyar	60
148				Bhavani Kattalai Barrage-I	30
149				Bhavani Kattalai Barrage-II	30
150				Bhavani Kattalai Barrage-III	30
151				Kodayar-I	60
152				Kodayar-II	40
153				Kundah-I	60
154				Kundah-II	175
155				Kundah-III	180
156				Kundah-IV	100
157				Kundah-V	40
158				Lower Mettur-I	30
159				Lower Mettur-II	30
160				Lower Mettur-III	30
161				Lower Mettur-IV	30
162				Mettur Dam	50
163				Mettur Tunnel	200
164				Moyar	36
165				Papanasam	32
166				Parson's Valley	30
167				Periyar	161
168				Pykara	59
169				Pykara Ultimate	150
170				Sarakarpathy	30
171				Sholayar-I	70
172				Suruliyar	35
				Total (Tamil Nadu)	1778
173	Telangana	State	TSGENCO	Lower Jurala	240
174				N J Sagar LBC	60
175				N J Sagar MP	110
176				Pochampad	36
177				Priyadarshni Jurala	234
178				Pulinchinthala	120
				Total (Telangana)	800
179	Uttar Pradesh	State	UPJVNL	Khara	72
180				Matatila	30.6

181				Obra	99
182				Rihand	300
				Total (Uttar Pr.)	501.6
183	Uttarakhand	Center	NHPC LTD	Dhauli Ganga	280
184				Tanakpur	94.2
185			SJVN LTD	Naitwar Mori	60
186			THDC LTD	Koteshwar	400
187				Tehri St-I	1000
188		Private	AHPC LTD	Shrinagar	330
189			JPVL	Vishnu Prayag	400
190			ReNew Power Private Limited	Singoli Bhatwari	99
191		State	UJVNL	Chibro (Yamuna)	240
192				Chilla	144
193				Dhakrani	33.75
194				Dhalipur	51
195				Khatima	41.4
196				Khodri	120
197				Kulhal	30
198				Maneri Bhali-I	90
199				Maneri Bhali-II	304
200				Ramganga	198
201				Vyasi	120
				Total (Uttarakhand)	4035
202	West Bengal	Center	DVC	Maithon	63
203			NHPC LTD	Teesta Low Dam-III	132
204				Teesta Low Dam-IV	160
205		State	WBSEDCL	Jaldhaka	36
206				Rammam	50
				Total (West Bengal)	441
	Grand Total				42222

****

ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 4566 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

Hydro Electric Projects under capacity addition plan till 2029-30

Sl. No	Project Name	Developer	Sector	State	Capacity (MW)	Stage
F Y. 2024-25						
1	Parbati-II	NHPC	Central	Himachal Pradesh	800	Under Construction
2	Pallivasal	KSEB	State	Kerala	60	Under Construction
3	Uhl-III	BVPCL	State	Himachal Pradesh	100	Under Construction
Sub-Total (FY 2024-25)					960	
F Y. 2025-26						
1	Subansiri Lower*	NHPC	Central	Arunachal Pradesh	1250	Under Construction
2	Rangit-IV	NHPC	Central	Sikkim	120	Under Construction
3	Lower Kopili	APGCL	State	Assam	120	Under Construction
4	Lower Sileru Extension	APGENCO	State	Andhra Pradesh	230	Under Construction
5	Kutehr	JSW	Private	Himachal Pradesh	240	Under Construction
Sub-Total (FY 2025-26)					1960	
F Y. 2026-27						
1	Subansiri Lower*	NHPC	Central	Arunachal Pradesh	750	Under Construction
2	Dhaulasidh	SJVN	Central	Himachal Pradesh	66	Under Construction
3	Pakal Dul	CVPPL	Central	Jammu & Kashmir	1000	Under Construction
4	Kiru	CVPPL	Central	Jammu & Kashmir	624	Under Construction
5	Vishnugad Pipalkoti	THDC	Central	Uttarakhand	444	Under Construction
6	Shahpurkandi	PSPCL	State	Punjab	206	Under Construction
7	Tidong-I	Statekraft India	Private	Himachal Pradesh	150	Under Construction
8	Mankulam	Ltd.	State	Kerala	40	Under Construction
Sub-Total (FY 2026-27)					3280	
F Y. 2027-28						
1	Kwar	CVPPL	Central	Jammu & Kashmir	540	Under Construction
2	Teesta- VI	NHPC	Central	Sikkim	500	Under Construction
3	Parnai	JKSPDC	State	Jammu & Kashmir	38	Under Construction
4	Chanju-III	HPPCL	State	Himachal Pradesh	48	Under Construction

5	Polavaram	Polavaram project Authority	State	Andhra Pradesh	960	Under Construction
Sub-Total (FY 2027-28)					2086	
F Y. 2028-29						
1	Sunni Dam	SJVN	Central	Himachal Pradesh	382	Under Construction
2	Tapovan Vishnugad	NTPC	Central	Uttarakhand	520	Under Construction
3	Rammam - III	NTPC	Central	West Bengal	120	Under Construction
4	Lakhwar Multipurpose Project	UJVNL	State	Uttarakhand	300	Under Construction
5	Luhri-I	SJVN	Central	Himachal Pradesh	210	Under Construction
6	Ratle	NHPC	Central	Jammu & Kashmir	850	Under Construction
7	New Ganderwal	JKSPDC	State	J & K	93	Concurred
8	Uri-I Stage-II	NHPC	Central	J & K	240	Concurred
9	Tato-I	NEEPCO	Central	Arunachal Pradesh	186	Concurred
10	Heo	NEEPCO	Central	Arunachal Pradesh	240	Concurred
11	Shongtong Karcham	HPPCL	State	Himachal Pradesh	450	Under Construction
Sub-Total (FY 2028-29)					3591	
F Y. 2029-30						
1	Dikhu	NMPPL	Private	Nagaland	186	Concurred
2	Thana Plaun	HPPCL	State	Himachal Pradesh	191	Concurred
3	Wah Umiam Stage-III (Mawphu stage-II)	NEEPCO	Central	Meghalaya	85	Concurred
4	Dulhasti Stage-II	NHPC	Central	J & K	260	S&I
5	Teesta Intermediate	WBSEDCL	State	West Bengal	90	S&I
Sub-Total (FY 2029-30)					812	
Grand Total					12689	

*5 units (1250 MW) likely during 2025-26 & 3 units (750 MW) during 2026-27.

Note: Concurred: Concurred by CEA
S&I: Survey & Investigation

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4570
ANSWERED ON 27.03.2025

POWER CONSUMPTION IN INDUSTRIES

†4570. SHRI ASHOK KUMAR RAWAT:

Will the Minister of POWER be pleased to state:

(a) whether any evaluation has been made regarding the annual rate of increase in the per capita consumption of power in the country;

(b) if so, whether any assessment has been made regarding the excessive increase in the demand of electricity during the last few years in the country;

(c) whether each state is working in a planned way to cater the supply and demand of power, if so, the details thereof;

(d) the total quantum of power consumed by the industries and households each year in the country; and

(e) whether any assessment has been made regarding power consumption in the industries and households during the last three years and if so, the details thereof?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : The details of year-wise per capita consumption of power in the country indicating the annual rate of increase during the period from March, 2018 to March, 2024 are given at Annexure-I.

(b) : There has been consistent increase in demand of electricity in the country during last few years. The details of Energy requirement during the period from 2018-19 till 2023-24, as per Annexure-II, indicate CAGR (Compounded Annual Growth Rate) of 5% during this period. The implementation of Government of India schemes such as Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), and Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA) has significantly improved electricity access and provided reliable & continuous power supply to households in both rural and urban areas across the country. In addition, factors like rapid economic growth, urbanization, rising living standards and the growing use of energy-intensive devices like air conditioners, other appliances, and digital technologies further contribute to this demand. Moreover, climate change-induced heat stress, and variable monsoon rainfall, also contribute to the rising demand for electricity.

.....2.

Government of India is further supporting States for grid electrification of households left-out during SAUBHAGYA, under the ongoing scheme of Revamped Distribution Sector Scheme (RDSS), launched in July, 2021. In addition, all identified households belonging to Particularly Vulnerable Tribal Group (PVTG) under PM-JANMAN (Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan) and tribal households under DA-JGUA (Dharti Aaba Janjatiya Gram Utkarsh Abhiyan) are being sanctioned for on-grid electricity connection under RDSS, as per the Scheme guidelines. Till date, works amounting to Rs. 4,643 Cr. have been sanctioned for electrification of 10,19,030 households including PVTG households identified under PM-JANMAN and tribal households identified under DA-JGUA across all the States.

With collective efforts of Centre and States/UTs, the average hours of supply in rural and urban areas have improved to 21.9 hrs and 23.4 hrs, respectively, in FY 2024.

(c) : With a view to ensure generation capacity remains ahead of projected peak demand, all the States, in consultation with CEA, have prepared their "Resource Adequacy Plans (RAPs)", which are dynamic 10 year rolling plans and includes power generation as well as power procurement planning.

All the States were advised to initiate process for creation of generation capacities; from all generation sources, as per their Resource Adequacy Plans.

(d) & (e) : The details of Electricity consumed by the industries and household in the country from FY 2017-18 to 2022-23 indicating also the growth rate during this period are given at Annexure-III.

****

ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4570 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

The detail of year-wise per capita consumption of power in the country along with annual rate of increase from March, 2018 to March, 2024:

Financial Year	Per Capta Consumption(kWh)	Annual Rate of increase (%)
31.03.2018	1,149	
31.03.2019	1,181	2.79
31.03.2020	1,208	2.29
31.03.2021	1,161	-3.89*
31.03.2022	1,255	8.10
31.03.2023	1,331	6.06
31.03.2024	1,395	4.81

*** Covid Period**

****

ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 4570 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

The details of Energy Requirement indicating growth rate and Compounded Annual Growth Rate (CAGR):

FY	Energy Requirement	Growth %	CAGR
	(MU)	%	%
2018-19	12,74,595		5.0
2019-20	12,91,010	1.29	
2020-21*	12,75,534	-1.20	
2021-22	13,79,812	8.18	
2022-23	15,13,497	9.69	
2023-24	16,26,132	7.44	

*Covid Period

****

ANNEXURE-III

ANNEXURE REFERRED IN REPLY TO PARTS (d) & (e) OF UNSTARRED QUESTION NO. 4570 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

The details of Electricity consumed in Million Units (MUs) by the industries and household in the country from FY 2017-2018 to 2022-23 :

Year	Domestic	Growth %	Industrial	Growth %
2017-18	2,73,545.02		4,68,613.30	
2018-19	2,88,243.11	5.37	5,19,196.29	10.79
2019-20	3,08,745.00	7.11	5,32,820.00	2.62
2020-21	3,30,808.94	7.15	5,08,776.19	-4.51*
2021-22	3,39,780.47	2.71	5,56,480.96	9.38
2022-23	3,53,156.08	3.94	5,93,895.17	6.72

*** Covid Period**

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4576
ANSWERED ON 27.03.2025

ELECTRICITY DISTRIBUTION COMPANIES

4576. DR. THIRUMAAVALAVAN THOLKAPPIYAN:

Will the Minister of POWER
be pleased to state:

(a) whether the Government is aware that allowing one or two Electricity distribution companies in the same area leads only to monopoly of one or two companies;

(b) if so, whether the Government has any plan to announce it as compulsory to have at least five companies to exist in each of such area so that the expectation of the Government to increase the efficiency is achieved; and

(c) if not, the reasons therefor?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) to (c) : To promote competition in electricity sector, Electricity Act, 2003 does not impose any restrictions on number of licensees in a distribution area. Appropriate Electricity Regulatory Commission may grant multiple licences for distribution of electricity within the same area.

****

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4592
ANSWERED ON 27.03.2025

REVAMPED DISTRIBUTION SECTOR SCHEME (RDSS)

4592. SHRI JAGDAMBIKA PAL:

Will the Minister of POWER be pleased to state:

(a) the details of the Revamped Distribution Sector Scheme (RDSS) and its progress; and

(b) the details of the budget allocation for the State of Uttar Pradesh with respect to RDSS, district-wise?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : Government of India launched the Revamped Distribution Sector Scheme (RDSS) in July 2021 with the objective of improving the quality and reliability of power supply to consumers through a financially sustainable and operationally efficient distribution Sector. The salient features of the scheme are as under:

(i) The scheme has an outlay of Rs. 3,03,758 Cr. and estimated Gross Budgetary Support (GBS) from Central Government of Rs. 97,631 Cr.

(ii) The scheme aims to reduce the Aggregate Technical and Commercial (AT&C) losses to pan-India levels of 12-15% and the Gap between Average Cost of Supply and Average Revenue Realised (ACS-ARR Gap) to zero by the end of the scheme period.

(iii) The scheme has two major components:

- **Part 'A'– Prepaid Smart Metering & System Metering and upgradation of the Distribution Infrastructure**
- **Part 'B' – Training & Capacity Building and other Enabling Activities.**

Under the scheme, financial assistance is being provided to the Distribution Utilities (excluding Private Sector Utilities) for loss reduction infrastructure works and smart metering works. Projects worth Rs. 1.48 lakh crore for loss reduction infrastructure and Rs. 1.31 lakh crore for smart metering works have been sanctioned which would help to improve the reliability and quality of power supply in the country.

.....2.

Under the Scheme, Loss reduction projects sanctioned includes works for replacement of bare conductors with covered conductors, laying Low Tension Aerial Bunched (LT AB) cables upgradation/augmentation of Distribution transformers (DT)/sub-stations, feeder segregation works etc. The sanctioned works are at various stages of implementation and the physical progress of Loss reduction works achieved till date is ~24%. Further, smart metering works have been sanctioned for 19.79 crore consumers, 2.11 lakh feeders and 52.53 lakhs Distribution Transformers as part of Advanced Metering Infrastructure (AMI). The State/ UT-wise details of loss reduction infrastructure works and smart metering works sanctioned under RDSS are placed at Annexure-I and Annexure-II, respectively. Till date, funds to the tune of Rs. 26,485.9 Cr. have been expended under RDSS including the funds expended under subsumed schemes of Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS) and Prime Minister Development Package (PMDP). The State/UT-wise details of expenditure of funds on loss reduction works under RDSS are at Annexure-III.

Further, Government of India has been supporting electrification of all households left out during SAUBHAGYA (Pradhan Mantri Sahaj Bijli Har Ghar Yojana) period under RDSS. Grid based electrification works have been sanctioned under RDSS wherever found feasible. Till date, works amounting to Rs. 4,643 Cr. have been sanctioned for grid electrification of 10,19,030 households. This includes grid electrification of households left-out during SAUBHAGYA, households belonging to Particularly Vulnerable Tribal Group (PVTG) identified under PM-JANMAN (Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan) and households belonging to Scheduled Tribes identified under DA-JGUA (Dharti Aaba Janjatiya Gram Utkarsh Abhiyan). The State/UT-wise details are placed at Annexure-IV.

The release of funds under the scheme is contingent on improvement in operational and financial performance of the Utilities which, in addition to other initiatives taken by GoI, has helped in bringing discipline in payment of subsidies and Govt. department dues to be released by the State Government to the Utility, regular issuance of tariff order, publishing of accounts, non-creation of regulatory assets, etc. As a result of collective efforts of the Centre and States/ UTs, the Aggregate Technical and Commercial (AT&C) loss of distribution utilities at national level have reduced from 21.91% in FY21 to 16.28% in FY24 and ACS-ARR Gap has reduced from Rs. 0.71/kWh in FY21 to Rs. 0.19/kWh in FY24.

(b) : The district-wise details of the project sanctioned/ budget allocated for the State of Uttar Pradesh under RDSS are at Annexure-V.

****

ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4592 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

State/UT-wise Distribution Infrastructure works sanctioned under RDSS

(in Rs. Cr.)

State/UTs	Sanctioned Cost of Loss Reduction Infrastructure Works	Sanctioned Cost of Smart Metering	Total Sanctioned Project Cost
Andaman & Nicobar Islands	462.01	53.56	515.57
Andhra Pradesh	10,709.93	4,127.85	14,837.78
Arunachal Pradesh	1,042.04	183.56	1,225.60
Assam	3,394.65	4,049.54	7,444.18
Bihar	8,406.20	2,021.21	10,427.42
Chhattisgarh	3,964.19	4,105.31	8,069.51
Delhi	323.63	13.38	337.01
Goa	247.08	469.17	716.25
Gujarat	6,089.11	10,641.96	16,731.07
Haryana	6,796.63	-	6,796.63
Himachal Pradesh	2,327.25	1,788.49	4,115.74
Jammu & Kashmir	4,770.90	1,063.62	5,834.51
Jharkhand	3,343.88	858.02	4,201.89
Karnataka	35.9	-	35.9
Kerala	3,017.65	8,231.21	11,248.86
Ladakh	875.78	-	875.78
Madhya Pradesh	9,425.74	8,910.65	18,336.39
Maharashtra	17,209.27	15,214.95	32,424.22
Manipur	615.41	121.16	736.57
Meghalaya	1,232.19	309.56	1,541.74
Mizoram	318.68	181.61	500.29
Nagaland	460.73	207.57	668.3
Puducherry	84.39	251.1	335.48
Punjab	3,873.37	5,768.50	9,641.87
Rajasthan	17,427.25	9,714.80	27,142.06
Sikkim	416.24	97.45	513.69
Tamil Nadu	9,567.71	19,235.36	28,803.08
Telangana	120.42	-	120.42
Tripura	598.28	318.55	916.83
Uttar Pradesh	21,660.73	18,956.29	40,617.02
Uttarakhand	1,717.13	1,106.03	2,823.15
West Bengal	7,222.57	12,670.45	19,893.01
Grand Total	1,47,756.95	1,30,670.88	2,78,427.83

****

ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4592 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

State/UT-wise Smart Metering works sanctioned under RDSS

State/UTs	Consumer Meters (Nos.)		Distribution Transformer Meters (Nos.)		Feeder Meters (Nos.)	
	Sanctioned	Installed	Sanctioned	Installed	Sanctioned	Installed
Andaman Nicobar Islands	83,573	-	1,148		114	-
Andhra Pradesh	56,08,846	12,33,450	2,93,140	2,139	17,358	2,174
Arunachal Pradesh	2,87,446	136	10,116	45	688	227
Assam	63,64,798	28,14,572	77,547	52,814	2,782	2,858
Bihar	23,50,000	18,26,110	2,50,726	96,421	6,427	5,540
Chhattisgarh	59,62,115	14,04,738	2,10,644	33,846	6,720	5,445
Delhi			766		2,755	
Goa	7,41,160	-	8,369	-	827	-
Gujarat	1,64,81,871	8,41,941	3,00,487	67,321	5,229	
Himachal Pradesh	28,00,945	1,99,092	39,012	5,328	1,951	534
Jammu and Kashmir	14,07,045	66,979	88,037	183	2,608	1,401
Jharkhand	13,41,306	81,182	19,512		1,226	421
Kerala	1,32,89,361	-	87,615		6,025	-
Madhya Pradesh	1,29,80,102	16,51,411	4,19,396	22,594	29,708	9,538
Maharashtra	2,35,64,747	12,41,910	4,10,905	1,15,550	29,214	28,700
Manipur	1,54,400	5,964	11,451		357	100
Meghalaya	4,60,000	-	11,419		1,324	-
Mizoram	2,89,383	-	2,300		398	-
Nagaland	3,17,210	-	6,276		392	-
Puducherry	4,03,767	-	3,105		180	-
Punjab	87,84,807	-	1,84,044		12,563	-
Rajasthan	1,42,74,956	-	4,34,608		27,128	11,416
Sikkim	1,44,680	16,450	3,229	233	633	432
Tamil Nadu	3,00,00,000	-	4,72,500		18,274	
Tripura	5,47,489	27,494	14,908	2	473	417
Uttar Pradesh	2,69,79,055	13,44,129	15,26,801	53,388	20,874	22,545
Uttarakhand	15,87,870	47,184	59,212	3,460	2,602	2,380
West Bengal	2,07,17,969	3,28,016	3,05,419	-	11,874	2,068
RDSS-Total	19,79,24,901	1,31,30,758	52,52,692	4,53,324	2,10,704	96,196

****

ANNEXURE-III

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4592 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

State/UT-wise sanctioned Loss Reduction works, Central Gross Budgetary Support and Cumulative Expenditure of Central Grant under RDSS

(in Rs. Cr.)

State/UTs	Sanctioned Cost of Loss Reduction Works	Sanctioned Central Gross Budgetary Support	Cumulative Expenditure of Central Grant
Andaman & Nicobar Islands	462.01	415.81	0
Andhra Pradesh	10,709.93	6,425.95	1461.67
Arunachal Pradesh	1,042.04	937.84	41.72
Assam	3,394.65	3,055.18	1055.83
Bihar	8,406.20	5,043.72	2286.71
Chhattisgarh	3,964.19	2,378.52	515.18
Delhi	323.63	194.18	0
Goa	247.08	148.25	14.61
Gujarat	6,089.11	3,653.46	1188.04
Haryana	6,796.63	4,077.98	234.58
Himachal Pradesh	2,327.25	2,094.53	86.73
Jammu & Kashmir	4,770.90	4,293.81	1014.3
Jharkhand	3,343.88	2,006.33	208.4
Karnataka	35.9	21.54	1.11
Kerala	3,017.65	1,810.59	175.58
Ladakh	875.78	788.20	77.66
Madhya Pradesh	9,425.74	5,655.44	1927.02
Maharashtra	17,209.27	10,325.56	2463
Manipur	615.41	553.87	93.56
Meghalaya	1,232.19	1,108.97	167.09
Mizoram	318.68	286.82	46.89
Nagaland	460.73	414.66	10.43
Puducherry	84.39	50.63	0.17
Punjab	3,873.37	2,324.02	229.36
Rajasthan	17,427.25	10,456.35	1603.56
Sikkim	416.24	374.62	35.16
Tamil Nadu	9,567.71	5,740.63	541.76
Telangana	120.42	72.25	1.99
Tripura	598.28	538.45	141.4
Uttar Pradesh	21,660.73	12,996.44	3981.24
Uttarakhand	1,717.13	1,545.41	109.19
West Bengal	7,222.57	4,333.54	796.95
Grand Total	1,47,756.94	94,123.55	20,510.89

****

ANNEXURE-IV

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4592 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

Household Electrification Works Sanctioned under RDSS

Sl. No.	State	Sanctioned Project Cost (Rs. Cr.)	Central Gross Budgetary Support (Rs. Cr.)	No. of Households Sanctioned *
1	Andhra Pradesh	161.27	96.76	46,443
2	Arunachal Pradesh	75.52	67.97	10,136
3	Assam	785.55	706.99	1,27,111
4	Bihar	300.55	180.33	42,635
5	Chhattisgarh	366.66	219.99	72,788
8	Himachal Pradesh	6.63	5.96	100
9	Jammu & Kashmir	77.1	69.39	10,730
10	Jharkhand	81.6	48.96	13,314
11	Karnataka	35.9	21.54	5,844
12	Kerala	7.07	4.24	1,482
14	Madhya Pradesh	184.7	110.81	36,045
15	Maharashtra	28.68	17.2	9,036
16	Manipur	214.44	193	36,972
17	Meghalaya	435.7	392.13	50,501
18	Mizoram	79.9	71.91	15,167
19	Nagaland	69.55	62.59	10,004
23	Rajasthan	499.52	299.71	2,08,592
25	Tamil Nadu	29.89	17.94	10,673
26	Telangana	120.41	72.25	31,081
27	Tripura	104.52	94.08	19,853
28	Uttar Pradesh	964.48	578.69	2,58,700
29	Uttarakhand	13.68	12.31	1,823
	Total	4,643.32	3,344.75	10,19,030

**** Includes electrification of 1,661 public places identified under DA-JGUA.***

****

ANNEXURE-V

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 4592 ANSWERED IN THE LOK SABHA ON 27.03.2025

****

District-wise details of the Project cost sanctioned and Central Budgetary support in the State of Uttar Pradesh under RDSS

(In Rs. Cr.)

Sl. No.	District	Sanctioned Cost of Distribution Infrastructure Works	Sanctioned Central GBS for Distribution Infrastructure Works	Sanctioned Cost of Smart Metering Works	Sanctioned Central GBS for Smart Metering Works
1	Agra	198.65	119.19	294.75	51.80
2	Aligarh	410.1	246.06	288.23	50.47
3	Ambedkar Nagar	158.42	95.05	215.20	43.28
4	Amethi	130.39	78.23	215.20	43.28
5	Auraiya	145.83	87.50	138.70	24.53
6	Ayodhya	174.52	104.71	215.21	43.28
7	Azamgarh	171.61	102.97	380.99	69.92
8	Baghpat	98.96	59.38	197.78	33.20
9	Bahraich	156.24	93.74	276.18	55.58
10	Ballia	294.8	176.88	199.15	36.46
11	Balrampur	130.42	78.25	137.07	27.40
12	Banda	196.66	118.00	201.36	35.38
13	Barabanki	197.86	118.72	215.20	43.28
14	Bareilly	429.7	257.82	392.09	77.76
15	Basti	96.7	58.02	250.39	45.88
16	Bijnor	341	204.60	509.03	85.65
17	Budaun	266.37	159.82	263.12	50.59
18	Bulandshehar	362.56	217.54	465.98	78.19
19	Chandauli	90.77	54.46	158.62	28.96
20	Chitrakoot	129.48	77.69	112.29	19.79
21	Deoria	160.31	96.19	245.29	45.24
22	Etah	231.84	139.10	154.83	27.30
23	Etawah	171.78	103.07	127.31	22.13
24	Farrukhabad	169.61	101.77	142.43	25.10
25	Fatehpur	369.94	221.96	236.43	42.90
26	Firozabad	295.55	177.33	223.33	38.73
27	GautamBuddh Nagar (incl. Noida)	1503.75	902.25	249.51	42.64
28	Ghaziabad	236.45	141.87	645.62	111.72
29	Ghazipur	209.74	125.84	277.28	50.39
30	Gonda	367.43	220.46	294.29	58.85
31	Gorakhpur	194.14	116.48	324.10	59.23
32	Hamirpur	107.93	64.76	135.08	23.73
33	Hapur	183.73	110.24	205.15	34.71

34	Hardoi	221.98	133.19	209.41	42.13
35	Hathras	163.16	97.90	178.19	31.27
36	Jalaun	169.54	101.72	175.80	30.99
37	Jaunpur	327.42	196.45	381.55	69.70
38	Jhansi	200.58	120.35	210.37	37.35
39	Amroha (J.P. Nagar)	131.27	78.76	256.36	42.79
40	Kannauj	133.95	80.37	155.00	27.31
41	Kanpur Dehat	117.28	70.37	177.87	31.32
42	Kanpur Nagar	1444.81	866.89	503.78	100.71
43	Kashganj (Kashiram Nagar)	217.2	130.32	136.95	24.18
44	Kaushambi	237.05	142.23	133.51	24.21
45	Kushinagar	134.52	80.71	264.16	48.82
46	Kheri Lakhimpur	196.77	118.06	360.59	72.69
47	Lalitpur	119.48	71.69	103.26	18.29
48	Lucknow	938	562.80	669.63	136.66
49	Maharajganj	74.96	44.98	261.19	48.38
50	Mahoba	96.8	58.08	97.83	17.34
51	Mainpuri	173.02	103.81	190.64	33.39
52	Mathura	326.08	195.65	243.50	42.52
53	Mau	223.73	134.24	207.42	38.05
54	Meerut	327.66	196.60	433.70	74.01
55	Mirzapur	169.42	101.65	213.75	38.42
56	Moradabad	278.19	166.91	401.79	68.54
57	Muzzaffarnagar	269.37	161.62	406.76	68.45
58	Pilibhit	199.03	119.42	202.70	40.64
59	Pratapgarh	355.37	213.22	296.68	54.08
60	Prayagraj	806.94	484.16	309.89	56.14
61	Raebareli	228.42	137.05	352.41	70.93
62	Rampur	142.69	85.61	276.35	46.83
63	Saharanpur	448.68	269.21	475.51	79.50
64	Sambhal	487.74	292.64	216.90	36.63
65	Sant Kabir Nagar	39.9	23.94	152.24	28.10
66	Sant Ravidas Nagar (Bhadoi)	131.93	79.16	126.19	22.76
67	Shahjahanpur	230.89	138.53	233.15	46.88
68	Shamli	106.05	63.63	206.45	34.37
69	Shrawasti	75.72	45.43	123.77	25.06
70	Siddharth Nagar	195.43	117.26	206.76	38.17
71	Sitapur	221.41	132.85	183.08	36.69
72	Sonbhadra	204.08	122.45	172.79	31.48
73	Sultanpur	158.85	95.31	215.20	43.28
74	Unnao	167.64	100.58	235.85	47.21
75	Varanasi	1,803.63	1082.18	139.36	24.97
	Total	21,079.88	12,647.93	18,885.46	3,458.56

****