

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
STARRED QUESTION NO.72
ANSWERED ON 29.07.2024

CSR SPENDING BY HYDEL PROJECTS IN HIMACHAL PRADESH

72 # SHRI HARSH MAHAJAN:

Will the Minister of Power be pleased to state:

- (a) the details of the ongoing hydel projects in Himachal Pradesh and the guidelines of Corporate Social Responsibility (CSR) under them; and
- (b) the total amount spent by hydel projects under Corporate Social Responsibility (CSR) during the last three years and the Public Sector Undertakings (PSUs) where such units are functioning, the details thereof?

A N S W E R

THE MINISTER OF POWER

(SHRI MANOHAR LAL)

(a) & (b) : A Statement is laid on the Table of the House.

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) & (b) IN RESPECT OF RAJYA SABHA STARRED QUESTION NO.72 FOR REPLY ON 29.07.2024 REGARDING CSR SPENDING BY HYDEL PROJECTS IN HIMACHAL PRADESH ASKED BY SHRI HARSH MAHAJAN.

(a) : At present, Himachal Pradesh has 29 Hydro Electric Projects (HEPs) with an aggregate installed capacity of 10,281 MW. Further, 9 HEPs with an aggregate installed capacity of 2,446 MW are under construction. The sector-wise and developer wise details of these projects is at **Annexure-I.**

Corporate Social Responsibility (CSR) guidelines issued by the Ministry of Corporate Affairs are being followed by all Central Public Sector Undertakings (CPSUs) developing HEPs, which inter-alia state that:

- At least two percent of the average net profits of the company made during the last three years, has to be kept as the annual budget for CSR & sustainability works during the year by the company as per sub-section (5) of Section 135 of the Companies Act, 2013.
- Preference is given to CSR activities in the local area around the projects for the benefit of the community living in and around its projects / power stations.
- Selection of CSR and sustainability schemes is done so as to ensure that maximum benefits reach the poor, backward & needy sections of the society and contributes to improving the quality of environment.
- The areas of education, health, sanitation, rural development, skill development, environment, women empowerment, promotion of sports, art & culture etc. are prioritised for CSR spending as per Schedule VII of the Companies Act, 2013.

(b) : An amount of Rs178crores was spent in Himachal Pradesh during the last three years (2021-22 to 2023-24) under various CSR activities by CPSUs developing hydel projects. Details are at **Annexure-II.**

ANNEXURE-I

**ANNEXURE REFERRED TO IN PART (a) OF THE STATEMENT LAID IN REPLY TO
STARRED QUESTION NO. 72 ANSWERED IN THE RAJY SABHA ON 29.07.2024
REGARDING CSR SPENDING BY HYDEL PROJECTS IN HIMACHAL PRADESH**

Sector-wise/Developer-wise Installed Capacity of H.E. Projects in Himachal Pradesh (Above 25 MW Capacity)

Sl. No.	Utilities/Stations	Capacity (MW)
In Operation		
	Central Sector	
A	Bhakra Beas Management Board (BBMB)	
1	Bhakra Left	630
2	Bhakra Right	785
3	Dehar	990
4	Pong	396
	Sub-Total BBMB	2801
B	NHPC Limited	
5	BairaSiul	180
6	Chamera-I	540
7	Chamera-II	300
8	Chamera-III	231
9	Parbati-III	520
	Sub-Total NHPC	1771
C	SJVN Limited	
10	NathpaJhakri	1500
11	Rampur	412
	Sub-Total SJVNL	1912
D	NTPC Limited	
12	Koldam	800
	Sub-Total NTPC	800
	Total Central Sector-HP	7284
State Sector		
A	Himachal Pradesh State Electricity Board Limited (HPSEBL)	
1	Bassi	66
2	Giri Bata	60
3	Larji	126
4	Sanjay	120
	Sub-Total HPSEBL	372.00
B	Himachal Pradesh Power Corporation Limited (HPPCL)	
5	Integrated Kashang	195
6	Sainj	100
7	SawraKuddu	111
	Sub-Total HPPCL	406
C	Punjab State Power Corporation Limited (PSPCL)	
8	Shanan	110
	Sub-Total PSPCL-HP	110
	Total State Sector	888

Private Sector		
A	Malana Power Company Limited (MPCL)	
1	Malana	86
B	GreenkoBudhil Hydro Power Private Limited (GBHPPL)	
2	Budhil	70
C	Everest Power Private Limited (EPPL)	
3	Malana-II	100
D	IA Energy Private Limited (IA Energy)	
4	Chanju-I	36
E	AD Hydro Power Limited (ADHPL)	
5	AllainDuhangan	192
F	Himachal Baspa Power Company Limited (HBPCL)	
6	Baspa	300
G	JSW Energy	
7	KarchamWangtoo	1045
H	Himachal Sorang Power Pvt. Ltd. (HSPPL)	
8	Sorang	100
I	GMR Energy Ltd. (GMR)	
9	BajoliHoli	180
	Total Private Sector	2109
Grand Total		10281

Under Construction		
Central Sector		
A	NHPC Limited	
1	Parbati St. II (NHPC)	800
	Sub-Total NHPC	800
B	SJVN Limited	
2	Luhri-I	210
3	Dhulasidh	66
4	Sunni Dam	382
	Sub-Total SJVN	658
	Total Central	1458
State Sector		
A	HPPCL	
5	ShongtongKarcham	450
6	Chanju-III	48
B	BVPCL	
7	Uhl-III	100
	Total State	598
Private Sector		
A	Statcraft	
8	Tidong-I	150
B	JSW	
9	Kutehr	240
	Sub-Total Private	390
Grand Total		2446

ANNEXURE-II

ANNEXURE REFERRED TO IN PART (b) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 72 ANSWERED IN THE RAJY SABHA ON 29.07.2024 REGARDING CSR SPENDING BY HYDEL PROJECTS IN HIMACHAL PRADESH

1. Amount Spent by CPSUs under CSR in Himachal Pradesh in last three years

(In RsCr)

Name of the CPSU	Installed Capacity of HEPs in Himachal Pradesh (in MW)	FY 2021-22	FY 2022-23	FY 2023-24	Total Amount Spent
NTPC	800	0.17	1.56	2.22	3.95
NHPC	1771	20.28	23.4	17.45	61.13
SJVN	1912	37.89	42.87	31.84	112.60
THDC	0	0	0	0.34	0.34
Total	4483	58.34	67.83	51.85	178.02

2. Details of amount spent by CPSUs under different CSR activities in Himachal Pradesh

i. NTPC Limited

Sl. No.	Focus Area	Type of Activities	Financial year			Total Expenditure in last three years (Rs in Cr.)
			2021-22 (Rs. In Cr.)	2022-23 (Rs. In Cr.)	2023-24 (Rs. In Cr.)	
1	Swachh Vidyalaya Abhiyan	Construction of school toilets, Repair and Maintenance of toilets constructed under swachh vidyalaya abhiyan	0.02	0.10	0.00	0.12
2	Education	Augmenting educational infrastructure, Improving learning levels in Govt schools, Distribution of Notebooks/Bags etc.	0.15	0.05	0.55	0.75
3	Health	Ambulance-medical camps, Installation of Tru Natt Machine, organizing various medical camps, Conducting awareness camps, Support to Muscular Dystrophy Centre	0.00	0.89	0.59	1.48
4	Sustainable Development	Installation of Solar Street Lights in nearby Villages, Distribution of fruit bearing plants	0.00	0.02	0.40	0.42
5	Infrastructure	Installation of High mast light	0.00	0.26	0.11	0.37
6	Roads	Repair and maintenance of village roads,	0.00	0.00	0.16	0.16
7	Water	Installation of water purifiers schools	0.00	0.00	0.06	0.06
8	Vocational	Conducting training programs for rural youth and farmers	0.00	0.02	0.00	0.02

9	Sanitation	Support for providing Equipment/ Appliances /Sanitation infrastructure.	0.00	0.00	0.05	0.05
10	Cultural/Sports/Animal	Promoting rural art and culture, Support for rural and national sports, Conducting Animal health camps.	0.00	0.17	0.16	0.33
11	Support to Physically Challenged Persons (PCPs)	Support to persons with disabilities with Aids and Appliances	0.00	0.02	0.04	0.06
12	Women Empowerment	Training to SHGs for livelihood generation, vocational training programs for rural women etc.	0.00	0.02	0.11	0.13
		Sub-Total (Rs. in Cr.)	0.17	1.56	2.22	3.95

ii. NHPC Limited

Sl. No.	Focus Area	Type of Activities	Financial year			Total Expenditure in last three years (Rs in Cr.)
			2021-22 (Rs in Cr.)	2022-23 (Rs in Cr.)	2023-24 (Rs in Cr.)	
1	Education	Skill development programs in the periphery of Projects/ Power Stations	8.27	20.67	12.04	40.99
2	Health	Augmentation of healthcare infrastructure	7.35	2.09	1.88	11.32
3	Rural Development	Providing community services	4.61	0.44	2.98	8.03
4	Environment	Installation of solar street lights	0.00	0.00	0.25	0.25
5	Sports	Supporting sports Centers	0.00	0.20	0.26	0.46
6	Swachh Vidyalaya Abhiyan	Toilets in schools	0.02	0.00	0.00	0.02
7	Disaster Management	Providing relief material	0.03	0.00	0.03	0.06
		Total (Rs. in Cr.)	20.28	23.40	17.45	61.13

iii. SJVN Limited

Sl. No.	Type of Activities	Expenditure in Financial Year			Total Expenditure in last three years (Rs in Cr.)
		2021-22 (Rs in Cr.)	2022-23 (Rs in Cr.)	2023-24 (Rs in Cr.)	
1	Health and Hygiene	10.94	6.75	17.39	35.07
2	Education and Skill Development	5.69	5.49	4.19	15.38
3	Empowerment of Vulnerable section of Society, Women empowerment, measures for benefits of armed forces	1.71	3.01	1.14	5.87
4	Infrastructural Development and Community Development	9.32	5.81	3.65	18.79
5	Preservation and promotion of culture, Melas, Sports etc.	2.81	1.87	3.46	8.14
6	Sustainable Development	4.62	18.69	1.43	24.73
7	Support to Start-ups	0.00	0.02	0.00	0.02
8	Assistance to the victims of natural disasters/calamities	2.54	0.50	0.14	3.18
9	Miscellaneous CSR activities	0.27	0.73	0.42	1.42
Total (Rs. in Cr.)		37.89	42.87	31.84	112.60

iv. THDC India Limited

Sl. No.	Focus Area	Type of Activities	Expenditure in Financial Year			Total Expenditure in last three years (Rs in Cr.)
			2021-22 (Rs in Cr.)	2022-23 (Rs in Cr.)	2023-24 (Rs in Cr.)	
1	Infrastructure	Infrastructure development and community development in rural areas	0.00	0.00	0.11	0.11
2	Environment	Ensuring environmental sustainability and animal welfare	0.00	0.00	0.01	0.01
3	Sports	Training to promote Rural sports, Nationally Recognized Sports, Paralympic Sports, Olympic Sports & development of sports infrastructure in rural area	0.00	0.00	0.22	0.22
Total (Rs. in Cr.)			0.00	0.00	0.34	0.34

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.790
ANSWERED ON 29.07.2024

POWER GENERATION CAPACITY

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

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

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

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

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

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

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

.....2.

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

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

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

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

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

ANNEXURE

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

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

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

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.791
ANSWERED ON 29.07.2024

POWER GRID CORPORATION OF INDIA

791 # **SHRI MADAN RATHORE:**

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

- (a) Power Grid Corporation of India belongs to what category of Undertaking of Government;
- (b) the States in which production units of Power Grid Corporation of India have been established and the manner in which the power produced from it is distributed to different States; and
- (c) the power that was produced during the last five years, year-wise, and the details of the quantum of its distribution State-wise?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : Power Grid Corporation of India Limited is a 'Maharatna' Public Sector Undertaking (PSU) under Ministry of Power, Government of India

(b) & (c) : Power Grid Corporation of India Limited is a deemed Transmission Licensee and is engaged in bulk transmission of Power. Power Grid Corporation of India Limited is not involved in generation/production of electricity.

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.792
ANSWERED ON 29.07.2024

PERFORM, ACHIEVE AND TRADE (PAT) SCHEME

792 **SHRI JOSE K. MANI:**

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

- (a) the details of the outcomes of the energy audit conducted through Bureau of Energy Efficiency (BEE) under the Perform, Achieve and Trade (PAT) scheme;
- (b) the total number of certified energy auditors in the country;
- (c) whether there is an intent to expand the energy audit to cover more thermal power plants, refineries, iron & steel plants, and textile industries; and
- (d) if so, State/UT wise details thereof and if not, reasons therefor?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : PAT scheme was launched in 2012. To date, 1333 Designated Consumers across thirteen sectors have been given energy conservation targets under the scheme. These targets are set for a three-year period. During the year 2022-23, the above units under PAT have saved 25.77 Million Ton of Oil Equivalent (MTOE), which is about 8% of their total annual energy consumption.

(b) : Till date 11,127 candidates have been certified as Energy Auditors, in the country.

(c) & (d): Currently, designated consumers under thirteen energy intensive sectors including thermal power plants, refineries, iron and steel, and textile industries are covered under the Perform-Achieve-Trade (PAT) scheme. With the introduction of the Carbon Credit Trading Scheme (CCTS) in June 2023, nine of these sectors which are Green-House Gas emission-intensive, including refineries, iron and steel plants, and textile industries will gradually transition to the CCTS by the financial year 2026-27. The remaining four energy intensive sectors including thermal power plants will continue to be covered under PAT scheme. Addition of new energy-intensive industries through energy audits is a continuous process under PAT scheme.

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.793
ANSWERED ON 29.07.2024

BLENDING OF DOMESTIC AND IMPORTED COAL

793 **SHRI K.R.N. RAJESHKUMAR:**

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

- (a) whether Government is considering increasing the per centage of blending domestic coal with imported coal-based (ICB) power plants and if so, details thereof;
- (b) whether Government is considering blending domestic coal with imported coal-based (ICB) power plants, if so, details thereof and if not, reasons therefor;
- (c) whether Government received any representation regarding the supply chain shortages and pricing impact of imported or blended coal in the Indian power sector, if so, details thereof; and
- (d) the measures taken by Government to ensure supply chain stability and reduce the import dependency on coal in the Indian power sector?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) & (b): Imported coal-based power plants are specifically designed to match the properties of imported coal, which differ from domestic coal in terms of calorific value, moisture content, ash content, and other characteristics. Blending domestic coal with imported coal in these plants can lead to significant technical challenges, such as reduced boiler efficiency, slagging, fouling, and increased maintenance needs. The configuration of the boiler, including its design parameters and operational settings, may not be suitable for handling the differences in coal quality, leading to operational inefficiencies. Therefore, taking into account all the techno-commercial issues, Respective Gencos take decision regarding blending of domestic coal with imported coal in their Imported coal based plants.

(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.

.....2.

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

(d) : The measures taken to ensure supply chain stability and reduce the import dependency on coal are given as under:

- (i) Major initiatives taken to increase domestic production of coal include Single Window Clearance, amendment of Mines and Minerals (Development and Regulation) Act, 1957 to allow captive mines to sell up to 50% of their annual production after meeting the requirement of the end use plant, production through MDO model, increasing use of modern technologies such as surface miner, continuous miner etc., taking up new projects and expansion of existing projects, and auction of coal blocks to private companies/PSUs. 100% Foreign Direct Investment is allowed for commercial mining.
- (ii) Ministry of Coal has launched Coal Logistics Policy and Integrated Coal Evacuation Plan to address the issue of coal transportation amidst rising demands. The Government has planned to address the issue of coal transportation through construction of New Railway Lines and capacity augmentation of railway network, First Mile Connectivity (FMC) Projects, Rail Connectivity projects and Railway Sidings.
- (iii) To address the issues of coal supplies to power sector, an Inter-Ministerial Sub Group comprising of representatives from Ministry of Power, Ministry of Coal, Ministry of Railways, Central Electricity Authority (CEA), Coal India Limited (CIL) and Singareni Collieries Company Limited (SCCL) meet regularly to take various operational decisions to enhance supply of coal to thermal power plants as well as for meeting any contingent situations relating to Power Sector including to alleviate critical coal stock position in power plants.
- (iv) The Annual Contracted Quantity (ACQ) has been increased upto 100% of the normative requirement, in the cases where the ACQ was either reduced to 90% of normative requirement (non-coastal) or where the ACQ was reduced to 70% of normative requirement (coastal power plants). Increase in the ACQ would result in more domestic coal supplies, thereby, reducing the import dependency.
- (v) Government has decided in 2022 that the coal to meet the full Power Purchase Agreement (PPA) requirement of all the existing linkage holders of Power Sector shall be made available by the coal companies irrespective of the trigger level and Annual Contracted Quantity levels. Thus, decision of the Government of meeting the full PPA requirement of the linkage holders of the Power Sector shall reduce the dependence on the imports.
- (vi) As per Ministry of Railways, during 2022-23, the net induction of coal carrying rolling stock was about 150 rakes. During 2023-24, about 200 rakes were further inducted, which increased annual coal transportation by 70 Million Tonnes (MT). Similarly, in FY 2024-25, another 250 rakes are likely to be inducted. With this induction, additional 60 rakes/day would be available for coal loading and coal transportation capacity would further go up by 85 Million Tonnes.
- (vii) Railways have identified 40 number of projects for augmentation of coal evacuation. Out of 40 projects, 17 projects have already been completed and 23 projects are in progress. Out of 23 projects, it is expected that about 18 projects would be completed by 2026-27.

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.794
ANSWERED ON 29.07.2024

VIRTUAL COURTS IN TRIBUNALS

794 **SHRI P. WILSON:**

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

- (a) whether it is a fact that the non-functioning of Virtual Courts in Tribunals such as APTEL and CERC severely affect the stakeholders, if so, the reasons for delay in implementing Virtual Courts in Tribunals and details thereof;
- (b) reasons for not appointed as members in CERC representatives from Southern States;
- (c) whether Government has considered the TANGEDCO request to allocate 100 per cent electricity to Tamil Nadu from upcoming units in Kudankulam Nuclear Power Plants (KNPP), if so, details thereof; and
- (d) if not, reasons therefor?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a): In Central Electricity Regulatory Commission (CERC), e-filing was implemented in April, 2016, and e-hearing was implemented in June, 2017. Public hearings are generally conducted online in CERC. In Appellate Tribunal for Electricity (APTEL) virtual hearing was conducted during COVID period. For proper functioning of virtual hearing, video conferencing/hybrid facilities have been recently set up in APTEL.

(b): Selection of Chairperson/Member of CERC is done under the provisions of Electricity Act, 2003. There is no provision in the Electricity Act, 2003 for making appointment of Chairperson/Member on the basis of geographical area.

(c) & (d): Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) had requested Ministry of Power to allocate 100% power from Kudankulam Nuclear Power Plant (KNPP) Unit-3&4 of Nuclear Power Corporation of India Limited (NPCIL). The request was examined in Ministry of Power (MoP) in accordance with the extant MoP Power Allocation Guideline dated 17.01.2011 which states that 50% of power will be allocated to 'Home State', 15% power will remain as unallocated quota at the disposal of Gol and remaining 35% will be allotted to other constituents (except 'Home State') of the particular region on the basis of extant guidelines on allocation of Power.

Since, the request of TANGEDCO to allocate 100% of power from KNPP Unit-3&4 of NPCIL was not in line with the provisions of MoP Power Allocation guideline, it was not acceded to by MoP.

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.795
ANSWERED ON 29.07.2024

PUNJAB'S INSTALLED CAPACITY OF POWER PROJECTS

795 SHRI VIKRAMJIT SINGH SAHNEY:

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

- (a) the total installed capacity of power projects managed by Government in the State of Punjab, categorized by energy sources such as thermal, hydroelectric, solar, wind, etc.;
- (b) the per centage of the total energy generated in the State of Punjab contributed by renewable energy sources from these Government-managed projects; and
- (c) the details of projected increase in renewable power generation capacity expected from upcoming projects in the State over the next five years?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : As on 30.06.2024, the Installed Capacity of Power Projects located in Punjab is 8877.58 MW. Out of this, power projects with capacity of 3524.1 MW are being managed by Central and State Sector Organisations. The details of the installed capacity indicating the energy sources are given at **Annexure-I**.

(b) : The details of power generation from Government-managed projects in the Punjab and percentage share of power generated from renewable energy sources are given at **Annexure-II**.

(c) : The projected increase in renewable power generation capacity expected from upcoming projects in the State over the next five years is 5061.75 MW including 4300 MW from Solar projects, 330.75 MW (Hybrid/Biomass/Mini-Hydel) and 431 MW from Hydel projects. These projects are at various stage of implementation. In addition, Solar projects of 1531 MW and 484 MW of Solar projects under PM KUSUM are at tendering stage. 44.6 MW of Rooftop Solar power projects are also at tendering/bidding stage.

ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 795 ANSWERED IN THE RAJYA SABHA ON 29.07.2024

The details of Installed Capacity of Power Projects managed by Central and State Sector organizations

All figures in MW

Sector	Thermal	Large Hydro	Renewable Energy Sources (RES)	Total
State Sector	2300	941	127.8	3368.8
Central Sector	0	155.3	0	155.3
Total	2300	1096.3	127.8	3524.1

ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 795 ANSWERED IN THE RAJYA SABHA ON 29.07.2024

The details of power generation from Government-managed projects in the Punjab and percentage share of power generated from renewable energy sources :

All figures in MU

Year	Thermal	Renewable Energy Sources (RES)*	Total	%Share of RES
2024-25 (upto May'24)	2291.82	732.82	3024.64	24.23
2023-24	11057.82	5163.67	16221.49	31.83

*Including Large Hydro

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.796
ANSWERED ON 29.07.2024

AMENDING THE ELECTRICITY RULES

796 SHRI AJIT KUMAR BHUYAN:

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

- (a) the reasons for Government framing rules by amending the Electricity Rules concerning the distribution of electricity which is exclusive by the domain of the States;
- (b) whether the rules made on the subjects are exclusively under the States, violative of the federal structure of Union of India;
- (c) whether there was any statutory advice from the Central Electricity Regulatory Commission not to make such laws which are contrary to the Electricity Act, 2003 (EA2003); and
- (d) if such advice as per law was made and not taken into consideration, the reason for non-acceptance?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) & (b) : Section 176 and 180 of the Electricity Act, 2003 provide for the Central Government and the State Governments respectively, to frame rules in their respective jurisdiction. In exercise of the power conferred under section 176, Central Government makes rules on various matters from time to time after consultation with various stakeholders including State Governments, State Commissions, DISCOMs, Power Sector Associations, etc. The rules framed are duly vetted by the Department of Legal Affairs, Ministry of Law and Justice, prior to their notification in the Gazette, and subsequent to that, the rules are laid before both houses of the parliament in pursuance of section 179 of the Electricity Act, 2003. The Rules are framed with the objective of ensuring harmony and uniformity across the country.

(c) & (d) : Advisory was sent by CERC vide letter dated 15.10.2020. However the advice was not considered by the Central Government because the rules were framed as per the provisions of the Electricity Act, 2003 prioritizing the larger public interest, financial viability, and the planned development of the power sector, with the objective of ensuring reliable power supply to consumers at reasonable rates. The rules were framed in consultations with stakeholders and were officially notified in the Gazette following legal vetting by the Ministry of Law & Justice. These Rules were laid before both houses of the parliament in pursuance of section 179 of the Electricity Act, 2003.

GOVERNMENT OF INDIA
MINISTRY OF POWER

RAJYA SABHA
UNSTARRED QUESTION NO.797
ANSWERED ON 29.07.2024

EXPANSION OF THERMAL POWER PLANTS

797 **SHRI BABUBHAI JESANGBHAI DESAI:**

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

- (a) whether Government proposes for expansion of thermal power capacity in the country;
- (b) if so, the details thereof and the estimated total cost for expansion of thermal power capacity;
- (c) the steps to reduce dependency on coal-based power plants and to decrease emission levels in such thermal power plants; and
- (d) the details of the per centage of electricity generated from various sources such as coal, gas, hydel and renewable energy since 2019?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) & (b) : In order to meet the estimated electricity demand by the year 2031-32, generation planning studies have 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 against the present installed capacity of 217.5 GW. Considering this, Government of India proposes to set up an additional minimum 80 GW coal based capacity by 2031-32.

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 is expected to entail an expenditure of minimum Rs. 6,67,200 Crs by 2031-32.

(c) : (i) To reduce the dependency on coal based thermal power plants, Government of India has planned to augment non-fossil fuel based installed electricity generation capacity. India in its Intended Nationally Determined Contributions (INDCs) stands committed to achieve about 50 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030. At present India has already achieved 45.5% Installed Capacity from non-fossil fuel-based resources. To achieve this objective, following steps have been taken to promote Renewable Energy Generation in the country:

- Permitting Foreign Direct Investment (FDI) up to 100 percent under the automatic route;
- Waiver of Inter State Transmission System (ISTS) charges for inter-state sale of solar and wind power for projects to be commissioned by 30th June 2025;

.....2.

- Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2029-30;
- Setting up of Ultra Mega Renewable Energy Parks to provide land and transmission connectivity to Renewable Energy developers for installation of RE projects at large scale;
- Schemes such as Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM), Solar Rooftop Phase II, 12,000 MW CPSU Scheme Phase II, PM Surya Ghar:Muft Bijli Yojana:
- Laying of new transmission lines and creating new sub-station capacity under the Green Energy Corridor Scheme for evacuation of renewable power;
- Notification of standards for deployment of solar photovoltaic system/devices.
- Setting up of Project Development Cell for attracting and facilitating investments;
- Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar PV and Wind Projects;
- Government has issued orders that power shall be dispatched against Letter of Credit (LC) or advance payment to ensure timely payment by distribution licensees to RE generators;
- Notification of Promoting Renewable Energy through Green Energy Open Access Rules 2022;
- Launch of Green Term Ahead Market (GTAM) to facilitate sale of Renewable Power through exchanges;
- National Green Hydrogen Mission launched with an aim to make India a global hub for production, utilization and export of Green Hydrogen and its derivatives; and,
- Notification of prescribed trajectory for RE power bids to be issued by Renewable Energy Implementation Agencies from FY 2023-24 to FY 2027-28 with an annual target of 50 GW of RE bids.

(ii) Further, for reduction of emission levels of thermal power plants, following measures have been taken by the Government:

- MoEF&CC vide notification dated 07.12.2015 and its subsequent amendments has notified norms in respect of reducing stack emissions such as Suspended Particulate Matter (SPM), Sox & NOx from coal based Thermal Power Plants. To meet these standards, Thermal Power Plants are using techniques like Electro Static Precipitator (ESP), Flue Gas Desulphurization (FGD), NOx Combustion Modification etc.
- Promotion of installation of efficient Supercritical /Ultra Supercritical units over Subcritical Thermal Units.
- Ministry of Power has issued a policy on utilization of Biomass for Power generation through co-firing in coal based power plants. The policy mandates 5-7% co-firing of Biomass primarily of agro residue with coal, after assessing the technical feasibility.

(d) : The details of the percentage of electricity generated from various sources such as coal, gas, hydel and renewable energy since 2019 is attached as **Annexure**.

ANNEXURE

ANNEXURE REFERRED IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 797 ANSWERED IN THE RAJYA SABHA ON 29.07.2024

Percentage of Electricity Generated From Various Sources

Year-Wise Generation from 2018-19 to 2024-25 (Up to May, 2024)									
Source Name		2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25 (upto May)	
		% of Total Gen	% of Total Gen	% of Total Gen	% of Total Gen	% of Total Gen	% of Total Gen	% of Total Gen	
Conventional	Thermal	Coal	71.77	69.20	68.82	69.81	70.54	72.50	73.29
		Lignite	2.51	2.37	2.21	2.49	2.23	1.95	1.94
		Diesel	0.01	0.01	0.01	0.01	0.01	0.02	0.03
		Naptha	0.00	0.00	0.01	0.00	0.00	0.00	0.00
		Natural gas	3.62	3.49	3.68	2.41	1.47	1.80	2.75
	Sub Total	77.92	75.07	74.72	74.72	74.25	76.28	78.00	
	Nuclear	2.75	3.35	3.11	3.16	2.82	2.76	2.76	
	Hydro	9.80	11.21	10.88	10.16	9.98	7.71	6.42	
	Bhutan Import	0.32	0.42	0.63	0.50	0.42	0.27	0.06	
Conventional Total		90.79	90.04	89.34	88.54	87.47	87.01	87.24	
Renewable Energy	Wind	4.51	4.65	4.35	4.60	4.42	4.79	4.03	
	Solar	2.85	3.61	4.37	4.93	6.28	6.67	7.65	
	Biomass	0.20	0.21	0.25	0.23	0.19	0.20	0.18	
	Bagasse	0.99	0.78	0.82	0.84	0.79	0.62	0.34	
	Small Hydro	0.63	0.68	0.74	0.70	0.69	0.55	0.41	
	Others	0.03	0.03	0.12	0.15	0.16	0.16	0.15	
Renewable Energy Total		9.21	9.96	10.66	11.46	12.53	12.99	12.76	
Grand Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	
