

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2761
ANSWERED ON 05.12.2019**

CSR FUNDING TO PSUs AND AUTONOMOUS BODIES

†2761. SHRI NABA KUMARSARANIA:

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

- (a) the names of Public Sector Undertakings (PSUs) and autonomous bodies under his ministry, State/UT-wise;**
- (b) the quantum of funds spent under Corporate Social Responsibility (CSR) by different PSUs during the last three years along with the areas in which the funds have been spent;**
- (c) the names of organizations alongwith the programmes under which CSR funds had been released to them by all the PSUs during the last four years; and**
- (d) the number and details of advertisements issued by all the PSUs during the last three years along with the names of newspapers in which advertisements were issued?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (d) : The information is being collected and will be laid on the Table of the House.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2773
ANSWERED ON 05.12.2019**

FLY ASH

2773. SHRI SHANTANU THAKUR:

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

- (a) the total quantity of Fly Ash produced during the last three years due to burning of Coal in various power stations of the country including West-Bengal;
- (b) the arrangements made to handle this Fly Ash by power station authorities;
- (c) whether there are any byproducts, made from Fly Ash and if so, the quantum of profit it adds to the power station; and
- (d) whether there are any contribution of Fly Ash to pollution and if so, the details thereof?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : The total quantity of fly ash produced during the last three years due to burning of Coal in various power stations of the country including West Bengal, is as follows:

S.N.	Year (April to March)	Total Fly Ash Generation (Million-ton)
1	2015-16	176.74
2	2016-17	169.25
3	2017-18	196.44

(b) : The various methods adopted for handling and disposal of fly ash in Thermal Power Plants are:

- i) Wet Ash handling system
- ii) High Concentration Slurry Disposal (HCSD)
- iii) Dry fly ash disposal system

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(c) : Fly ash produced in the country is utilized for manufacturing of cement, bricks & tiles and concrete. It is also used for various other purposes such as for mine filling, reclamation of low-lying areas, construction of roads & flyovers, embankments, in Agriculture, Hydro Power Sector and others.

The monthly data of amount received and expenditure borne by various Thermal Power Plants from Data of Ash Availability & Utilization Web Portal (from April, 2018 to March, 2019) is annexed.

(d) : Fly ash handling in power plants causes fugitive dust if not handled properly. The power plants are required to take all requisite measures to avoid the same.

ANNEXURE**ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 2773 ANSWERED IN THE LOK SABHA ON 05.12.2019.**

Monthly data of amount received and Expenditure Borne by various Thermal Power Plants from Data of Ash Availability & Utilization Web Portal (from April, 2018 to March, 2019)

Sl. No.	Month	Data Uploaded by No. of TPPs	Amount received by TPPs (Rs.)	Expenditure Borne by TPPs (Rs.)
1.	April-18	127	44,56,55,714	17,32,23,291
2.	May-18	127	46,48,85,571	23,43,93,781
3.	June-18	128	44,90,13,734	17,55,38,079
4.	July-18	129	33,39,67,085	39,66,92,329
5.	Aug-18	128	34,14,18,521	15,12,69,477
6.	Sep-18	129	39,67,24,905	16,01,85,807
7.	Oct-18	125	47,45,39,336	18,67,59,242
8.	Nov-18	124	34,12,49,481	18,18,35,537
9.	Dec-18	122	43,95,90,397	23,49,03,422
10.	Jan-19	122	43,24,02,530	25,25,89,219
11.	Feb-19	120	37,64,40,936	15,67,82,596
12.	Mar-19	121	41,15,72,773	20,47,13,742
Total			4,90,74,60,983	2,50,88,86,522

Reference-<https://mapp.ntpc.co.in/asha>

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2821
ANSWERED ON 05.12.2019**

RURAL ELECTRIFICATION

2821. SHRI SUBBARAYAN K.:

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

- (a) whether the Government has met the target of cent per cent rural electrification in the country;**
- (b) if so, the details thereof;**
- (c) whether it is a fact that the schemes to ensure seamless power supply and robust infrastructure are far from completion and more than half of the funds allocated for these schemes remain unutilized; and**
- (d) if so, the details thereof along with the steps being taken to achieve the target on time?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b): As reported by the States, all the inhabited census villages stand electrified as on 28.04.2018. Further, all the States reported electrification of all households, as on 31.03.2019, except few households in LWE affected Bastar region of Chhattisgarh.

(c) & (d): Electricity is a concurrent subject and as such providing electricity connection to households falls under the purview of State Governments / Power Utility. All the States/UTs have entered into Memorandum of Understanding (MoU) with the Government of India for providing 24 x 7 power supply to all households, industrial and commercial consumers from April, 2019 and adequate supply of power to agricultural consumers as per State policy. Government of India supplement the efforts of the States through its various schemes including Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), Pradhan Mantri Sahaj Bijli Har Ghar Yojana- Saubhagya and Ujjwal Discom Assurance Yojana (UDAY).

Substantial progress has been made under DDUGJY & Saubhagya schemes towards creation of electricity infrastructure and providing electricity connections to households. Under these schemes, funds are released for sanctioned projects in installments based on the reported utilisation of amount in the previous installment(s) and fulfillment of stipulated conditionalities. So far Rs.45,174.89 crore have been released under various projects of DDUGJY and States have reported 69% overall progress.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2826
ANSWERED ON 05.12.2019**

ELECTRIFICATION IN RURAL AREAS

†2826. SHRI GOPAL CHINNAYA SHETTY:

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

- (a) whether remarkable progress has been made in the field of electrification in rural areas of the country during the last two and half years;**
- (b) if so, the comparative details of last years;**
- (c) the details of progress made in the field of electrification and targets achieved in rural areas of the country during the last three years; and**
- (d) the details of future plans in this regard?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (d): As reported by the States, all the inhabited un-electrified census villages stand electrified on 28.04.2018 across the country.

Further, to achieve universal household electrification by providing last mile connectivity and electricity connections to all households in rural and all poor households in urban areas across the country Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana – “Saubhagya” in October, 2017. All the States reported electrification of all households on Saubhagya portal, as on 31.03.2019, except few households in the LWE affected Bastar region of Chhattisgarh. Since launch of the scheme, 2.628 crore households were electrified up to 31.03.2019 across the country.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2833
ANSWERED ON 05.12.2019**

CROSS SUBSIDY SYSTEM

2833. SHRI RAVNEET SINGH BITTU:

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

- (a) whether the Government proposes to address the cross-subsidy charged on large power consumers in the country including Ludhiana and if so, the details thereof; and**
- (b) whether the Government proposes to remove cross-subsidy system in the country including Ludhiana and if so, the details thereof?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b) : Electricity is a concurrent subject. The tariff for retail supply of electricity to all consumers, including large consumers, is determined by the respective State Electricity Regulatory Commission. The Tariff Policy, 2016 issued by Central Government provides that Appropriate Commission shall notify a road map such that tariffs are brought within +20% of the average cost of supply. As per the provisions the Electricity Act, 2003, the State Electricity Regulatory Commission while determining the tariffs are guided by the Tariff Policy provisions.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2851
ANSWERED ON 05.12.2019**

DEMAND AND SUPPLY OF POWER IN THE COUNTRY

2851. PROF. SAUGATA RAY:

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

- (a) the gap between the demand and supply of power in the country;**
- (b) the details of power generation through various sources and cost of production for unit, source-wise;**
- (c) whether the Government proposes to set up new power plants in the country; and**
- (d) if so, the details thereof?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : As on 31.10.2019, the installed generation capacity in the country has been around 3,64,960 Mega Watt (MW), which is sufficient to meet the electricity demand in the country. The details of actual power supply position in terms of energy and peak of the country during the current year i.e. 2019-20 (upto October, 2019) is given at Annexure-I. It may be seen that the gap between demand and supply of power during the current year 2019-20 (upto October, 2019) both in terms of Energy and Peak is less than 1%. This gap is generally on account of factors, other than of power availability in the country e.g. constraints in sub-transmission and distribution network, financial constraints of State Power Utilities to purchase power etc. Apart from long term Power Purchase Agreements power can be purchased at any time from power exchanges.

(b) : The details of power generation from various sources (Thermal, Hydro & Nuclear) of 25 MW and above capacity stations in the country during the last year & current year i.e. 2019-20 (upto October,2019) are given at Annexure-II.

Further, the source-wise range of rate of sale of electricity in Rs/kWh as approved by the concerned Central Electricity Regulatory Commission (CERC)/ State Electricity Regulatory Commission (SERC) during the year 2017-18 are given at Annexure-III.

(c) & (d): Generation of electricity is a delicensed activity as per the Electricity Act, 2003, except for the concurrence of Central Electricity Authority (CEA) for hydro generating stations with estimated scheme cost exceeding the sum fixed by the Central Government from time to time. Details of Central Sector Hydro Power Projects sanctioned during last two years is given at Annexure-IV.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2851 ANSWERED IN THE LOK SABHA ON 05.12.2019.

Details of actual power supply position in terms of energy and peak of the country during the current year i.e. 2019-20 (upto October, 2019)

Year	ENERGY				PEAK			
	Energy Requirement	Energy Supplied	Energy not supplied		Peak Demand	Peak Met	Demand Not Met	
	(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
2019-20 (upto Oct, 2019)*	785,488	781,228	4,259	0.5	183,804	182,533	1,271	0.7

**Provisional*

ANNEXURE-II

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 2851 ANSWERED IN THE LOK SABHA ON 05.12.2019.

Details of power generation from various sources (Thermal, Hydro & Nuclear) of 25 MW and above capacity stations in the country during the last year & current year i.e. 2019-20 (upto October, 2019)

CATEGORY	GENERATION (MU)	
	2018-19	2019-20 (Upto October,2019)*
Thermal	1072223.88	613559.86
Nuclear	37812.59	28195.10
Hydro	134893.61	111110.12
Bhutan Import	4406.62	5081.14
Total	1249336.70	757946.22

****Provisional***

ANNEXURE-III

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 2851 ANSWERED IN THE LOK SABHA ON 05.12.2019.

Source-wise range of rate of sale of electricity in Rs/kWh as approved by the concerned Central Electricity Regulatory Commission (CERC)/ State Electricity Regulatory Commission (SERC) during the year 2017-18

CATEGORY	Rate of sale of electricity as approved by CERC/SERC (Rs/kWh)
Thermal- Coal	1.39 to 6.34
Thermal- Lignite	2.70 to 4.49
Thermal-Diesel	5.43 to 5.63
Thermal- Gas/RLNG	2.38 to 6.56
Nuclear	2.06 to 4.09
Hydro	0.36 to 6.89

ANNEXURE-IV

ANNEXURE REFERRED TO IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO. 2851 ANSWERED IN THE LOK SABHA ON 05.12.2019.

List of Central Sector Hydro Power Projects sanctioned during last two years

Sl. No.	Name of the Project	Implementing Agency	Capacity (MW)
1.	Teesta - VI	NHPC	500
2.	Dibang	NHPC	2880
3.	Kiru	CVPPL	624
		TOTAL	4004

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2859
ANSWERED ON 05.12.2019**

ALLOCATION OF POWER

2859. SHRI COSME FRANCISCO CAITANO SARDINHA:

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

- (a) the allocation of power during the current financial year, State/UT-wise;**
- (b) whether any proposals are pending from various States including the State of Goa for allocation of more power during the current year;**
- (c) if so, the details thereof and the action taken thereon, State/UT-wise;**
- (d) whether the Government is making or proposes to make any estimates about the anticipated shortage of power in the current and the ensuing year; and**
- (e) if so, the details thereof and the steps being taken to cope with the same?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : The details of the allocation of power from Central Generating Stations to each State/UT during the current financial year is given at Annexure.

(b) & (c) : No proposal is pending from the States/UTs including the State of Goa for allocation of more power during the current financial year.

(d) & (e): As per the Load Generation Balance Report (LGBR) for 2019-20 prepared by Central Electricity Authority, no shortage of electricity is anticipated in the country. Further, the Load Generation Balance Report for the next financial year will be compiled based on the review of actual power supply position for the current year 2019-20.

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2859 ANSWERED IN THE LOK SABHA ON 05.12.2019.

Details of the allocation of power from Central Generating Stations to each State/UT during the current financial year

Sl. No.	Region / State	Total Power allocated from Central Generating Stations (MW)
1	Chandigarh	330.6
2	Delhi	4014.7
3	Haryana	2874.9
4	Himachal Pradesh	1481.5
5	Jammu & Kashmir	2255.1
6	Punjab	2903.1
7	Rajasthan	3360.1
8	Uttar Pradesh	7572.0
9	Uttarakhand	1123.3
10	PowerGrid	11.6
11	Railways NR	245.0
12	BTPS	2.0
	Northern Region	26173.9
13	Chhattisgarh	1603.7
14	Gujarat	4147.1
15	Madhya Pradesh	5882.5
16	Maharashtra	7852.9
17	Daman & Diu	333.7
18	D.N.Haveli	950.9
19	Goa	610.9
20	PowerGrid	8.7
21	HWP of DAE	14.0
22	BARC Facilities	10.0
23	Railways WR	170.0
	Western Region	21584.4
24	Andhra Pradesh	3743.8
25	Telangana	2525.5
26	Karnataka	4859.3
27	Kerala	2235.8
28	Tamil Nadu	6436.4
29	Puducherry	523.1
30	NLC	100.0
31	PowerGrid	6.3
	Southern Region	20430.0
32	Bihar	4457.4
33	DVC	3769.2
34	Jharkhand	1593.6
35	Odisha	1769.3
36	West Bengal	2352.2
37	Sikkim	172.2
38	PowerGrid	3.8
39	Railways	210.0
	Eastern Region	14327.6
40	Arunachal Pradesh	219.5
41	Assam	1609.5
42	Manipur	248.8
43	Meghalaya	336.2
44	Mizoram	205.0
45	Nagaland	151.3
46	Tripura	482.3
47	PowerGrid	2.5
	North-Eastern	3255.1
	All India	85,771

1. Above allocation as on 30.09.2019 is for Central Generating units under commercial operation and for Evening Peak Hours only. Component of Unallocated power may vary during off-peak hours.

NOTE:

2. All India share from Central Generating Stations does not include power allocated to Bangladesh. Total Power allocated to Bangladesh = 250 MW (100 MW each from NR and WR and 50 MW from ER NTPC stations' unallocated power).

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2866
ANSWERED ON 05.12.2019**

ELECTRICITY CONNECTION TO EVERY POOR HOUSEHOLD

2866. SHRI THOMAS CHAZHIKADAN:

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

- (a) whether the Union Government has prepared any scheme with the State Governments to provide electricity connection to every poor household in the country and if so, the details thereof;**
- (b) the details of such connections provided so far, State-wise;**
- (c) whether there is any plan to route subsidies in power sector through Direct Benefit Transfer (DBT) and if so, the details thereof; and**
- (d) the steps taken to streamline the subsidies in power sector?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b) : Yes, Sir. Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana– Saubhagya in October, 2017 to achieve universal household electrification by providing last mile connectivity and electricity connections to all households in rural and all poor households in urban areas across the country. As informed by the States, 2.628 crore households were electrified up to 31.03.2019 across the country, since launch of the scheme on 11.10.2017. State-wise detail is given at Annexure.

(c) & (d) : The subsidies to specified category of consumers are provided by the State Governments. The Electricity Act, 2003 provides in Section 65 that if the State Government proposes to grant subsidy to any class of consumers it shall make available funds for this in advance to the concerned distribution company. The State Governments have been advised that if they propose to give subsidies they should give it through Direct Benefit Transfer (DBT). The tariff policy also mandates that direct subsidy is a better way to subsidize poorer consumer rather than cross subsidy (Clause 8.3 Tariff Policy 2016).

ANNEXURE**ANNEXURE REFERRED IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 2866 ANSWERED IN THE LOK SABHA ON 05.12.2019.**

State-wise electrification of households as per Saubhagya portal during the period from 11.10.2017 to 31.03.2019.

Sl. No.	Name of the States	Number of households electrified
1	Andhra Pradesh	1,81,930
2	Arunachal Pradesh	47,089
3	Assam	17,45,149
4	Bihar	32,59,041
5	Chhattisgarh	7,49,397
6	Gujarat	41,317
7	Haryana	54,681
8	Himachal Pradesh	12,891
9	Jammu & Kashmir	3,87,501
10	Jharkhand	15,30,708
11	Karnataka	3,56,974
12	Madhya Pradesh	19,84,264
13	Maharashtra	15,17,922
14	Manipur	1,02,748
15	Meghalaya	1,99,839
16	Mizoram	27,970
17	Nagaland	1,32,507
18	Odisha	24,52,444
19	Puducherry	912
20	Punjab	3,477
21	Rajasthan	18,62,736
22	Sikkim	14,900
23	Tamil Nadu	2,170
24	Telangana	5,15,084
25	Tripura	1,39,090
26	Uttar Pradesh	79,80,568
27	Uttarakhand	2,48,751
28	West Bengal	7,32,290
Total		2,62,84,350

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2868
ANSWERED ON 05.12.2019**

SAUBHAGYA SCHEME

2868. DR. (PROF.) KIRIT PREMJBHAI SOLANKI:

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

- (a) the salient features of the Saubhagya Scheme and the current status of its implementation in the country;**
- (b) the number of beneficiary households covered under the scheme, State/UT-wise;**
- (c) whether the scheme includes any provisions to address the problem of affordability of power and the inability of rural households to pay the electricity bills and if so, the details thereof;**
- (d) whether the scheme includes any provision to address the rampant use of illegal connections of electricity and if so, the details thereof; and**
- (e) the additional power that is expected to be required after the inclusion of households under this scheme and the steps being taken by the Government to meet the future power demand?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b) : Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana – Saubhagya, with an outlay of Rs.16,320 crore in October, 2017. The salient features of the scheme are as under:

- (i) Last mile connectivity and electricity connections to all un-electrified households in rural areas and poor households in urban areas.**

- (ii) **Solar based standalone systems for un-electrified households located in remote and inaccessible villages/habitations where grid extension is neither feasible nor cost effective.**

All the States reported electrification of all willing households as on 31.03.2019, except few households in LWE affected Bastar region of Chhattisgarh. States reported electrification of 2.63 crore households since launch of scheme till 31.03.2019. The State/UT-wise details of household connection provided is given in Annexure.

(c) : **Under the scheme, free electricity connection is provided to all un-electrified poor households whereas for non-poor rural households an amount of Rs.500 would be recovered by the DISCOMs/Power Departments from the beneficiary in ten equal installments in subsequent electricity bills. Electricity consumption bill is borne by the consumers. Determination of tariff is within the domain of the concerned State with the approval of appropriate regulator.**

(d) : **Distribution of electricity lies in the domain of State/DISCOM and onus is on them to take action against illegal connection. Section 135 of Electricity Act, 2003 has specific provisions for detection of theft and penalizing a consumer with imprisonment for a term which may extend to three years or with fine or with both. Use of electricity through tampered meters and use of electricity for unauthorized purpose etc. are covered under the definition of theft under Section 135(1) (d) & (e) of Electricity Act, 2003. Further, Section 153 of Electricity Act, 2003 provides for setting up Special Courts in the States for speedy trial of offences related to theft of electricity and other offences related to theft of electricity and other offence as referred in Sections 135 to 140 and Section 150 of Electricity Act, 2003.**

(e) : **Adequate installed capacity exists in the country to meet the demand. The total installed capacity of the country stands at 356.100 GW as on 31.03.2019 with average peak demand of 177.022 GW.**

ANNEXURE**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 2868 ANSWERED IN THE LOK SABHA ON 05.12.2019.**

State-wise electrification of households as per Saubhagya portal during the period from 11.10.2017 to 31.03.2019.

Sl. No.	Name of the States	Number of households electrified
1	Andhra Pradesh	1,81,930
2	Arunachal Pradesh	47,089
3	Assam	17,45,149
4	Bihar	32,59,041
5	Chhattisgarh	7,49,397
6	Gujarat	41,317
7	Haryana	54,681
8	Himachal Pradesh	12,891
9	Jammu & Kashmir	3,87,501
10	Jharkhand	15,30,708
11	Karnataka	3,56,974
12	Madhya Pradesh	19,84,264
13	Maharashtra	15,17,922
14	Manipur	1,02,748
15	Meghalaya	1,99,839
16	Mizoram	27,970
17	Nagaland	1,32,507
18	Odisha	24,52,444
19	Puducherry	912
20	Punjab	3,477
21	Rajasthan	18,62,736
22	Sikkim	14,900
23	Tamil Nadu	2,170
24	Telangana	5,15,084
25	Tripura	1,39,090
26	Uttar Pradesh	79,80,568
27	Uttarakhand	2,48,751
28	West Bengal	7,32,290
Total		2,62,84,350

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2869
ANSWERED ON 05.12.2019**

ELECTRIFICATION OF VILLAGES

2869. SHRI B.B. PATIL:

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

- (a) the number of villages which have been provided with electricity during the last two years, State-wise;**
- (b) the details of action being taken by the Government to achieve the target of providing electricity to all the villages and hamlets across the country;**
- (c) whether the Government proposes to provide electricity to such villages and hamlets through solar energy which may not have facility of electricity due to not being covered under the said target; and**
- (d) if so, the details thereof?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (d) : As reported by the States, all the inhabited census villages across the country stand electrified as on 28.04.2018. During the last two years, 5251 inhabited un-electrified census villages were electrified. State-wise details are presented at Annexure.

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO.2869 ANSWERED IN THE LOK SABHA ON 05.12.2019.

State-wise electrification of inhabited un-electrified census villages under DDUGJY during the last two years i.e. 2017-18 & 2018-19.

Sl. No.	Name of the State	2017-18	2018-19	Total
1	Arunachal Pradesh	854	280	1,134
2	Assam	572		572
3	Bihar	332	264	596
4	Chhattisgarh	348	31	379
5	Jammu & Kashmir	35	62	97
6	Jharkhand	613	116	729
7	Karnataka	25		25
8	Madhya Pradesh	44	5	49
9	Maharashtra		80	80
10	Manipur	77	93	170
11	Meghalaya	218	151	369
12	Mizoram	14		14
13	Nagaland	2		2
14	Odisha	544	381	925
15	Rajasthan	1		1
16	Uttar Pradesh	9	22	31
17	Uttarakhand	43	30	73
18	West Bengal	5		5
	Total	3,736	1,515	5,251

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2880
ANSWERED ON 05.12.2019**

COAL BASED POWER PLANTS

**2880. SHRI BIDYUT BARAN MAHATO:
SHRI PRATAPRAO JADHAV:**

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

- (a) whether the Government has assessed the impact of setting up of the coal based power plants in areas which face severe water scarcity in the country;**
- (b) if so, the details thereof and the reasons for the same;**
- (c) whether more than 40 per cent of India's proposed coal based power plants are likely to double the country's water consumption;**
- (d) if so, the details thereof;**
- (e) whether the Greenpeace International has observed that most of the States in the country are likely to bear the brunt of water shortage due to construction of the proposed coal based power plants; and**
- (f) if so, the details thereof and the remedial steps being taken by the Government in this regard?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (d) : After the enactment of Electricity Act 2003, setting up of a power plant is a delicensed activity. As such proposals for setting up of New Thermal Power Projects are not being received in Ministry of Power/Central Electricity Authority (CEA). However, while granting Environmental Clearance (EC) to a power plant, water availability is ensured by the developer through concerned State/Central agencies responsible for water allocation from rivers/reservoirs. The thermal power plants are required to meet the water consumption norms prescribed by Ministry of Environment, Forest & Climate Change (MoEF&CC).

(e) : The said Green Peace International report has not been seen by the Ministry of Power / Central Electricity Authority (CEA).

(g) : The measures being taken by Government to reduce water consumption in Thermal Power Plants are as follows:

- i. Compliance of new water consumption norms published by MoEF&CC vide Notification dated 07.12.2015 regarding use of water in Thermal Power Plants**
- ii. The Tariff Policy, 2016 mandates use of treated sewage water from sewage treatment plants (STP) of Municipality / local bodies by the thermal power plants that are located with 50 km radius. All thermal power plants have been advised to use STP water for cooling purpose, wherever possible.**
- iii. The following water conservation measures are also being taken by Thermal Power Plants:**
 - a. Ash water recirculation system- Water from ash pond is recovered and reused in the system.**
 - b. Dry fly ash handling system & High concentration slurry disposal system (HCSD) - These ash handling techniques reduce the ash handling water requirement thereby reducing the water consumption.**
 - c. Zero water discharge system – Treating the total waste water produced in the plant and recycling back in to the consumptive water system reduces water consumption.**
 - d. Operating cooling towers at higher Cycle of Concentration (COC): This reduces the waste water generated by the plant. This waste water generated is used for low grade applications like ash handling, coal dust suppression and gardening etc.**
 - e. Air cooled condensers are recommended in thermal power plants for cooling purpose, in water scare region.**

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2881
ANSWERED ON 05.12.2019**

SAUBHAGYA SCHEME

2881. MS. RAMYA HARIDAS:

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

- (a) whether Saubhagya Scheme launched by the Government to provide electricity facility to all households in the country is being implemented in the country as per the schedule and targets;**
- (b) if so, the details thereof; and**
- (c) the details of the States where this scheme has achieved considerable progress in providing electricity to the households and achieved its targets along with the extent of progress made in this regard?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (c) : Yes, Sir. Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana – Saubhagya in October, 2017 to achieve universal household electrification by providing last mile connectivity and electricity connections to all households in rural and all poor households in urban areas across the country. All the States reported electrification of all households on Saubhagya portal, as on 31.03.2019, except few households in the LWE affected Bastar region of Chhattisgarh. As informed by the States, 2.628 crore households were electrified up to 31.03.2019 across the country, since launch of the scheme on 11.10.2017. State-wise detail is given at Annexure.

ANNEXURE**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 2881 ANSWERED IN THE LOK SABHA ON 05.12.2019.**

State-wise electrification of households as per Saubhagya portal during the period from 11.10.2017 to 31.03.2019.

Sl. No.	Name of the States	Number of households electrified
1	Andhra Pradesh	1,81,930
2	Arunachal Pradesh	47,089
3	Assam	17,45,149
4	Bihar	32,59,041
5	Chhattisgarh	7,49,397
6	Gujarat	41,317
7	Haryana	54,681
8	Himachal Pradesh	12,891
9	Jammu & Kashmir	3,87,501
10	Jharkhand	15,30,708
11	Karnataka	3,56,974
12	Madhya Pradesh	19,84,264
13	Maharashtra	15,17,922
14	Manipur	1,02,748
15	Meghalaya	1,99,839
16	Mizoram	27,970
17	Nagaland	1,32,507
18	Odisha	24,52,444
19	Puducherry	912
20	Punjab	3,477
21	Rajasthan	18,62,736
22	Sikkim	14,900
23	Tamil Nadu	2,170
24	Telangana	5,15,084
25	Tripura	1,39,090
26	Uttar Pradesh	79,80,568
27	Uttarakhand	2,48,751
28	West Bengal	7,32,290
	Total	2,62,84,350

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2898
ANSWERED ON 05.12.2019**

ELECTRICITY IN VILLAGES

†2898. SHRIMATI VEENA DEVI:

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

- (a) the number of villages where electricity has been provided, State-wise;**
- (b) whether the Government has set any target for providing electricity in all villages under the Vidyutikaran Yojana; and**
- (c) if so, the details thereof?**

A N S W E R

**THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW &
RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT
& ENTREPRENEURSHIP**

(SHRI R.K. SINGH)

**(a) to (c) : As reported by the States, all the inhabited census villages stand
electrified as on 28.04.2018 across the country.**

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2905
ANSWERED ON 05.12.2019**

HYDRO POWER GENERATION

2905. SHRI HEMANT SRIRAM PATIL:

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

- (a) the details of potential capacity of Hydro Power generation that can be produced in the country;**
- (b) whether the Government has failed to produce energy to its full capacity from Hydro Power in the country despite its huge potential, if so, the details thereof and the reasons therefor;**
- (c) whether the Government has assessed the Hydro Power Generation potential and its potential locations and if so, the details thereof;**
- (d) whether the Government proposes to formulate such a policy and if so, the details thereof; and**
- (e) the other steps taken by the Government to boost production of Hydro Power?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (c): The total assessed hydro power potential in the country is 1,66,454 MW, which comprises of:

Category	Potential (MW)	Basis
Large Hydropower Projects (projects of capacity more than 25 MW)	1,45,320	Reassessment study done by CEA during 1978-1987.
Small Hydropower Projects (projects of capacity upto 25 MW)	21,134	Small hydropower data-base (July 2016), prepared by Alternate Hydro Energy Centre (AHEC), IIT Roorkee.

A Table showing state-wise hydro power potential is enclosed as Annexure.

Large hydropower projects of cumulative capacity of 40613 MW (27.95% of potential) (excluding Pumped Storage Projects) have been installed so far. In small hydro sector, a cumulative capacity of 4647 MW (21.98% of total potential) has been installed. The slow pace of small hydropower can largely be attributed to delay in getting forest clearances, and geological and hydrological uncertainties, etc. In large hydro sector, difficult terrain, interstate disputes, rehabilitation and resettlement issues, higher capital costs resulting in higher tariffs, long gestation period, delay in getting environmental clearance are the major factors which have resulted into slow growth.

(d) & (e) : To accelerate tapping potential of large hydropower in the country, the Government, inter-alia, has taken the following measures:

- (i) Hydropower projects of capacity more than 25 MW have also been declared as renewable energy source.**
- (ii) Hydropower Purchase Obligation (HPO) has been notified as separate entity within Non-Solar Renewable Purchase Obligation (RPO).**
- (iii) Tariff rationalization measures for bringing down hydropower tariff including providing flexibility to the developers to determine tariff by back loading of tariff after increasing project life to 40 years, increasing debt repayment period to 18 years and introducing escalating tariff.**
- (iv) Budgetary support for flood moderation/ storage hydroelectric projects.**
- (v) Budgetary support to cost of enabling infrastructure i.e. roads/bridges.**

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 2905 ANSWERED IN THE LOK SABHA ON 05.12.2019.

Region/State	Identified Potential	
	Small projects (projects of capacity upto 25 MW)	Large Hydropower Projects (projects of capacity more than 25 MW) (excluding pumped hydro)
Northern		
Jammu & Kashmir and Ladakh	1707.45	13543
Himachal Pradesh	3460.34	18540
Punjab	578.28	971
Haryana	107.24	64
Rajasthan	51.64	483
Uttarakhand	1664.31	17998
Uttar Pradesh	460.75	664
Sub Total	8030.01	52263
Western		
Madhya Pradesh	820.44	1970
Chhattisgarh	1098.20	2202
Gujarat	201.97	590
Maharashtra	786.46	3314
Goa	4.70	55
Sub Total	2911.77	8131
Southern		
Andhra Pradesh	409.32	2341
Telangana	102.25	2019
Karnataka	3726.59	6459
Kerala	647.15	3378
Tamil Nadu	604.46	1693
A&N Islands	7.27	0
Sub Total	5497.04	15890
Eastern		
Jharkhand	227.96	582
Bihar	526.98	40
Odisha	286.22	2981
West Bengal	392.06	2829
Sikkim	266.64	4248
Sub Total	1699.86	10680
North Eastern		
Meghalaya	230.05	2298
Tripura	46.86	0
Manipur	99.95	1761
Assam	201.99	650
Nagaland	182.18	1452
Arunachal Pradesh	2064.92	50064
Mizoram	168.99	2131
Sub Total	2994.94	58356
All India	21133.62	145320

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2909
ANSWERED ON 05.12.2019**

PRODUCTION OF ELECTRICITY

2909. ADV. DEAN KURIAKOSE:

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

- (a) whether the production of electricity is sufficient to meet the demand of the nation;**
- (b) If so, the details thereof;**
- (c) the steps taken by the Government to increase the production of electricity;**
- (d) the share of renewable energy compared to the total demand; and**
- (e) the details of steps taken by the Government to improve the production of green energy?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b) : As on 31.10.2019, the installed generation capacity in the country has been around 3,64,960 Mega Watt (MW), which is sufficient to meet the electricity demand in the country. The details of actual power supply position in terms of energy and peak of the country during the current year i.e. 2019-20 (upto October, 2019) is given at Annexure. It may be seen that the gap between demand and supply of power during the current year 2019-20 (upto October, 2019) both in terms of Energy and Peak is less than 1%. This gap is generally on account of factors, other than of power availability in the country e.g. constraints in sub-transmission and distribution network, financial constraints of State Power Utilities to purchase power etc. Apart from long term Power Purchase Agreements power can be purchased at any time from power exchanges.

.....2.

(c) : Generation of electricity is a delicensed activity as per the Electricity Act,2003, except for the concurrence of Central Electricity Authority (CEA) for hydro generating stations with estimated scheme cost exceeding the sum fixed by the Central Government from time to time. As per the information available with CEA, conventional power generation capacity totalling to 59,615.65 MW is at various stages of construction in the country, which includes 42281.15 MW Thermal (Coal), 406.15 MW Thermal (Gas), 12,034.5 MW Hydro and 5,300 MW Nuclear. Govt. of India has set a target of 175,000 MW installed capacity from renewable energy sources by the end of 2021-22 which includes 1,00,000 MW from Solar, 60,000 MW from Wind, 10,000 MW from Biomass and 5000 MW from Small Hydro. Against this target, the renewable capacity of 83,379 MW already stands commissioned as on 31.10.2019.

(d) : The share of generation from renewable energy sources in the total generation from conventional and renewable sources in the country has been 9.21% and 10.13 % during the year 2018-19 and 2019-20 (upto October,2019) respectively.

(e) : The steps taken by the Government to incentivize renewable energy sector and improve the production of green energy in the country inter-alia, include the following:

- (i) Announcement of a target of installing 175 GW of renewable energy capacity by the year, 2022;**
- (ii) Permitting Foreign Direct Investment (FDI) up to 100 percent under the automatic route;**
- (iii) Waiver of Inter State Transmission System (ISTS) charges and losses for inter-state sale of solar and wind power for projects to be commissioned up to December, 2022;**
- (iv) Notification of standard bidding guidelines to enable distribution licensee to procure solar and wind power at competitive rates in cost effective manner;**
- (v) Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2022;**
- (vi) Implementation of Green Energy Corridor project to facilitate grid integration of large scale renewable energy capacity addition; and,**
- (vii) Launching of New Schemes, such as, PM-KUSUM, solar rooftop phase II, 12000 MW CPSU scheme Phase II.**

ANNEXURE**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 2909 ANSWERED IN THE LOK SABHA ON 05.12.2019.**

Details of actual power supply position in terms of energy and peak of the country during the current year i.e. 2019-20 (upto October, 2019)

Year	ENERGY				PEAK			
	Energy Requirement	Energy Supplied	Energy not supplied		Peak Demand	Peak Met	Demand Not Met	
	(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
2019-20 (upto Oct, 2019) *	785,488	781,228	4,259	0.5	183,804	182,533	1,271	0.7

****Provisional***

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2927
ANSWERED ON 05.12.2019**

FALL IN DEMAND OF ELECTRICITY

2927. SHRI G.S. BASAVARAJ:

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

- (a) whether power generation in the country fell 12.7 per cent year-on-year, in October and thus recording third straight month when power generated was less than the corresponding months a year ago;**
- (b) if so, the details thereof;**
- (c) whether the Government would attribute the fall in demand to the extended monsoons this year and if so, the details thereof; and**
- (d) whether lower generation in October could also be due to an all time low PLF of 51.1 per cent of coal plants stressed for adequate demand and coal supply issues and if so, the details thereof?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (d) : The details of growth in generation during three months i.e August to October 2019 is given at Annexure. The electricity generated was 0.4% higher in August 2019 with respect to August 2018. There was reduction of around 2.9% and 12.88% during September 2019 and October 2019 respectively with respect to the same months last year. The lower generation was mainly due to prolonged rainy season and good rainfall which led to reduction in demand in Agriculture sector and reduction in cooling requirement in domestic and commercial sectors.

During the current year 2019-20 (upto October, 2019), there has been 16% growth in generation from Hydro and around 22% growth in hydro power imported from Bhutan. There has also been 27% growth in generation from Nuclear power plants and 24% growth in generation from Solar. The share of green power i.e. generation from Non-fossil Fuel has been around 27.3%. Thus, the reduction in overall generation was not attributable to the lower plant load factor (PLF) of thermal generation rather we have been able to change the energy mix in order to reduce our Carbon footprint.

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 2927 ANSWERED IN THE LOK SABHA ON 05.12.2019.

Generation Performance during August to October, 2019

Period	Generation during 2019-20 (MU)	Generation during 2018-19 (MU)	Growth (%)
August	106,200	105,793	0.39
September	105,195	108,328	-2.89
October	98,887	113,507	-12.88
April-October	757,946	749,314	1.15

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2943
ANSWERED ON 05.12.2019**

MOU ON POWER WITH NEIGHBOURING COUNTRIES

**†2943. SHRI CHHATAR SINGH DARBAR:
DR. VIRENDRA KUMAR:**

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

- (a) the number of the neighboring or other countries with whom Memorandum Of Understanding on the matters related with power have been signed;**
- (b) the terms of reference thereof and the benefits likely to be earned therefrom; and**
- (c) the details of the assistance likely to be provided to other countries?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : Ministry of Power, Government of India has eight existent Memorandum of Understandings/Agreements with neighbouring and other countries viz. Bangladesh, Bhutan, Nepal, Myanmar, Republic of Korea, United Kingdom of Great Britain and Northern Ireland, United States of America and the Switzerland.

(b) & (c) : The details have been annexed.

ANNEXURE REFERRED TO IN REPLY TO PARTS (b) & (c) OF UNSTARRED QUESTION NO. 2943 ANSWERED IN THE LOK SABHA ON 05.12.2019.

(b) The Terms of Reference (ToR) of different MoUs and benefits likely to be earned therefrom are as under:

- (i) The ToR of MoU with Bangladesh inter-alia include cooperation in power generation, transmission, energy efficiency and development of various types of renewable energy; establish grid connectivity between the countries, etc.**

The cooperation in the field of exchange of power, power generation, grid connectivity, energy efficiency and development of renewable energy would mutually benefit both the countries.

- (ii) The ToR of MoU with Bhutan inter-alia include promotion of development and construction of hydropower projects and associated transmission systems as well as trade in electricity between the two countries.**

The development of hydropower in the Kingdom of Bhutan will make a lasting contribution to the economic development of both countries.

- (iii) The ToR of MoU with Nepal inter-alia include developing transmission interconnections, grid connectivity, power exchange and trading; prepare scheduling, dispatch, energy accounting, settlement and procedures for cross-border power trade and unscheduled interchange.**

The cooperation in cross-border power exchange and trading through enhanced transmission interconnections and grid connectivity would mutually benefit both the countries by moving towards a common electricity market that could extend to sub-regional and regional levels.

- (iv) The ToR of MoU with Myanmar inter-alia include cooperation in power generation, transmission, energy efficiency and development of various types of renewable energy including hydropower.**

The cooperation in the field of power sector development including power generation, grid connectivity, exchange of power, energy efficiency and development of renewable energy would mutually benefit both the countries.

- (v) **The ToR of MoU with Republic of Korea inter-alia include cooperation in electric development of renewable energy, smart grids and power information and technology, transmission and distribution of electric power, energy efficiency and energy storage systems.**

Significant potential exists in the development and implementation of joint initiatives and projects in the areas of electric power development and new energy industries that may facilitate sustainable economic growth of the two countries.

- (vi) **The ToR of MoU with UK inter-alia include market reforms, integration of renewable energy into the grid, smart grids, energy storage and new energy technologies, etc.**

The cooperation between the two countries would enhance long-term cooperation between the two countries in the development of the energy sector.

- (vii) **The ToR of MoU with USA inter-alia include facilitating joint research, access to financing, policy dialogue, public private partnership, etc.**

Both the countries intend to focus on efforts to increase clean energy access, energy efficiency, renewable energy, clean energy technologies with co-benefits for climate change and health, and efforts to enhance resilience to the impacts of climate change.

- (viii) **The ToR of MoU with Switzerland inter-alia include building capacities and knowledge of builders, architects, engineers, labs, institutions and others in the area of building energy efficiency in India by utilizing Swiss experience and expertise.**

Both countries intend to reduce energy consumption in new buildings in India consistent with the objectives of the National Mission on Sustainable Habitat.

- (c) **The following assistance is to be provided to other countries:**

- (i) **Technical assistance in setting up of the Hydro and Thermal Power Plants;**
- (ii) **Consultancy services in transmission and distribution sector; &**
- (iii) **Capacity building.**

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2954
ANSWERED ON 05.12.2019**

ELECTRICITY CONNECTIONS IN RURAL HOUSEHOLDS

2954. DR. AMAR SINGH:

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

- (a) the average number of hours for which the electricity is supplied for villages in the State of Punjab; and**
- (b) the percentage of households in all villages of rural Punjab and which have an electricity connection?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : As per the information provided by the State of Punjab, the average supply in rural areas is 24 hours as on 30.09.2019.

(b) : As per information provided by the State of Punjab, all the households in the State stand electrified as on 31.03.2019.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2959
ANSWERED ON 05.12.2019**

COAL BASED THERMAL POWER PLANTS

2959. SHRI ANUBHAV MOHANTY:

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

- (a) whether the Government is aware of the fact that the Ministry of Environment, Forest and Climate Change have revised the norms and divided the Coal based Thermal Power Plants in the three categories;**
- (b) if so, the details thereof;**
- (c) whether the implementation period given to the State Government is too short; and**
- (d) if so, whether the Government considers to allow exemption from environment upgradation for Category-1 Plants of residual life time up to 2027 and Category-2 & 3 Plants up to 10 years from the cut-off date of December 2017 i.e., by financial year 2027, if so, the details thereof?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b): Ministry of Environment, Forest and Climate Change (MoEF&CC) has notified the new environment norms for coal based Thermal Power Plants (TPPs) on 07.12.2015 and 28.06.2018 categorizing TPPs with respect to date of installation in three categories as follows:

- i. TPPs (units) installed before 31st December, 2003.**
- ii. TPPs (units) installed after 31st December, 2003 and upto 31st December, 2016.**

.....2.

iii. TPPs (units) to be installed from 1st January, 2017.

(c) : In order to ensure uninterrupted power supply position in the country, a phased implementation plan (to be implemented by 2022) for installation of Flue Gas De-Sulphurization (FGD) for control of SO_x, in plants for a capacity of 1,61,402 MW (414 Units) and upgradation of Electrostatic Precipitator for control of Particulate Matter (PM), in plants for a capacity of 64,525 MW (222 Units) was prepared by Central Electricity Authority (CEA) in consultation with the stakeholders and this plan was submitted to MoEF&CC on 13.10.2017. The Central Pollution Control Board (CPCB) has issued directions to Thermal Power Plants to ensure compliance as per the plan prepared by CEA.

(d) : CPCB has informed that no such proposal is under consideration.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2979
ANSWERED ON 05.12.2019**

POWER PLANTS IN BIHAR

†2979. SHRI VIJAY KUMAR:

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

- (a) whether the Government proposes to set up power plants in Bihar and if so, the details thereof along with its present status of construction;**
- (b) whether the construction of the above plants has been delayed thereby increasing its estimated cost significantly;**
- (c) if so, the details thereof including the original estimated cost of the said plants and the time by which they were supposed to be completed;**
- (d) the details of the estimated cost as on date and the revised completion schedule of the above plants; and**
- (e) the steps taken by the Government to find out a solution of the above reasons so as to complete the future plans on time?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (d) : As per section 7 of Electricity Act 2003, any generating company may establish, operate and maintain a generating station without obtaining a license under this act, if it complies with the technical standards relating to connectivity with the grid. Therefore, any corporate body or individual can invest in thermal power generation without seeking permission from the government. However, for setting up of hydroelectric power projects, the detailed project reports (DPRs) are required to be submitted for concurrence of the Central Electricity Authority (CEA).

The details of under construction power plants in the state of Bihar along with present status, reason of delay, original estimated cost, estimated cost as on date, original completion schedule and revised completion schedule are enclosed as Annexure.

(e) : The developers of these projects have taken up the matter with concerned agencies for resolving project specific issues which were leading to delay, and have also made suitable amendments in the contracts for resolving the contractual issues. Besides, following steps have been taken by the Government for ensuring the timely completion of the power projects:

- ✓ **CEA monitors the progress of under construction power projects through frequent site visits and interaction with the developers, equipment suppliers and other stakeholders to identify the issues critical for commissioning of projects and help in resolving them.**
- ✓ **Ministry of Power also reviews the progress of ongoing power projects regularly with the concerned officers of CEA, equipment manufacturers, State Utilities/ CPSUs/ Project developers, etc.**
- ✓ **Issues are also raised in PRAGATI, for proactive governance and timely implementation, as and when required.**
- ✓ **The Project Monitoring Group (PMG) also reviews the issues relating to pending projects. The developers of the projects can raise the project specific issues on PMG portal for their resolution with the concerned agencies/ departments.**

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 2979 ANSWERED IN THE LOK SABHA ON 05.12.2019.

Details of Under construction Thermal Power Projects in the state of Bihar

Sl. No.	Project Name	Unit No	Capacity (MW)	Commissioning schedule		Cost (in Rs Crore)		Current Status	Reason for Delay
				Original	Anticipated	Original	Latest		
1	Buxar Thermal Power Project ,	U-1	660	Jul-23	Jul-23	10439.1	-	Project is under construction	No delay
		U-2	660	Jan-24	Jan-24				
2	Barh STPP-I	U-1	660	Aug-09	Apr-20	8693	21312.1	Project is under construction	<ul style="list-style-type: none"> • Inordinate delay by Main Plant (SG & Auxiliaries Package) vendor M/s TPE. M/s TPE stopped work from Oct'2013 and the contract of M/s TPE was terminated on 14.01.15. Contract for balance works re-awarded in Jan'16. • Delay due to failure of coils, supplied by M/s. TPE, during Hydro Test of boiler of Unit-I. Accordingly, change of material was approved and contract was awarded to M/s. GE on 15.01.2018 for supply, dismantling and installing of coils. • Delay due to US sanctions on Power Machines(PM) from Russia, which affected balance TG supplies and works. • Delay due to land acquisition / physical possession in past. • Shortage of aggregate in Year 2010 as Govt. of Bihar banned stone quarry mines to protect the environment under Bihar minor mineral concession (Amendment) rules, 2010. • Delay in Readiness of Railway line Hazaribagh-Koderma-Tilaiya-Rajgir-Bakhtiyarpur route (250km) will affect transportation of coal for Barh Project.
		U-2	660	Jun-10	Apr-21				
		U-3	660	Apr-11	May-22				

3	Nabi Nagar TPP	U-4	250	Nov-13	Apr-20	5352.51	9582.89	Project is under construction	<ul style="list-style-type: none"> • Delay in land acquisition. • Frequent law order problems/ disturbances/ Bandhs in past. • Delay in readiness of Coal Handling Plant (CHP) (M/s Techpro). • Agency under NCLT. • Delay in readiness of Ash Handling plant (AHP) (M/s Indure). • Delay in Supply of equipment's by BHEL for Unit#4 • Delay due to poor mobilization of civil agency (M/s Era). • Agency under NCLT
4	New Nabi Nagar TPP	U-2	660	Jul-17	Apr-20	13624.02	17304.3	Project is under construction	<ul style="list-style-type: none"> • Delay in acquisition of land affected work of Railway Siding and Make-up water (MUW) pipe corridor. • House State Oustees (HSOs) from Main Plant and Ash Dyke Shifted only in Mar'16/Jun'17. • Frequent law and order problem in the past. • Delay in readiness of AHP (M/s DCIPS). • Agency under NCLT/ Liquidation. • Delay in readiness of CHP (M/s TRF). • Delay due to poor mobilization of civil agency (M/s Era). • Agency under NCLT • Initial delay in Site levelling (M/s AMR).
		U-3	660	Jan-18	Mar-22				

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2988
ANSWERED ON 05.12.2019**

ENERGY SECURITY

†2988. SHRI VISHNU DAYAL RAM:

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

- (a) whether it is true that India ranked at the 109th position in the Energy Trilemma Index by the World Energy Council and if so, the details thereof;**
- (b) the steps taken by the Government to boost energy security in the country in terms of energy equity storage capability and import dependency; and**
- (c) the steps taken by the Government to ensure energy equity through universal, affordable and adequate supply of energy?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : Yes, Sir.

WEC Trilemma index ranking of countries is on the basis of providing sustainable energy through three dimensions: Environmental sustainability, Energy security, Energy equity (accessibility and affordability).

(b) : The steps taken by the Government to boost electricity energy security in the country are:

- (i) As on 31.10.2019, the all India generation installed capacity is 3,64,960 MW which includes 83,379.50 MW from Renewable Energy Sources (RES).**
- (ii) Government of India has planned an ambitious capacity addition target of 1,75,000 MW from Renewable Energy Sources (RES) by the year 2022.**
- (iii) Electric Vehicles: Government of India is providing incentives to the consumers for adoption of Electric Vehicles (EVs). Some of the incentives are as follows:**

- I. Faster Adoption and Manufacturing of Electric Vehicles in India: Phase II (FAME II) scheme has been launched with total fund allocation of INR 10,000 crores during year 2019-22 to incentivize EV adoption for shared mobility in India. INR 1000 crore has been allocated for establishment of EV charging infrastructure.**

II. Incentives defined in Union Budget 2019:

- **GST: The government has reduced the GST on EVs from 12% to 5%.**
- **Income tax rebate of up to INR 1.5 lakhs on interest payable on loans for purchase of EVs.**
- **Customs Duty exemptions on parts exclusively used in EVs (e-drive assembly, on-board charger, e-compressor and charging gun.)**

III. Ministry of Power has also notified "Charging Infrastructure for Electric vehicles-Guidelines and Standard" on 01.10.2019.

(c) : Ministry of Power has made significant strides in ensuring electricity access to all the citizens of the country:

- (i) Under Deendayal Upadhyaya Gram Jyoti Yojana Scheme (DDUGJY), all villages have been electrified. Also, under Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya) Scheme, All the States (except Chhattisgarh) declared 100% saturation in household electrification as on 31.03.2019.**
- (ii) Indian Electricity is operating at single transmission grid basis. As on Oct'2019, the transmission lines (220 kV and above) of 4,19,395Ckm, transformation capacity (220 kV and above) of 9,32,643 MVA in substations and 99,050 MW of Inter-regional (IR) capacity is catering to the peak demand of about 183 GW.**
- (iii) In order to facilitate power evacuation from Renewable Energy Projects, Government has initiated a programme for development of Green Energy Corridors (GEC).**
- (iv) UDAY scheme has been launched by Central Government for improving operational and financial efficiency of DISCOMs.**
- (v) Operational efficiency in generation, transmission and distribution are enhanced progressively in cost plus tariff regime through performance based regulation mandated in the Tariff Policy.**

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.2989
ANSWERED ON 05.12.2019**

ELECTRICITY DEMAND

2989. DR. KALANIDHI VEERASWAMY:

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

- (a) whether the villages across the country are experiencing a huge growth in their electricity demand;**
- (b) if so, the details thereof, State/UT-wise including Tamil Nadu;**
- (c) whether the Government is finding it difficult to manage the huge growth in demand of their electricity;**
- (d) if so, the reasons therefor;**
- (e) the details of the number of villages resulting in severe electricity shortages within North Chennai; and**
- (f) the steps taken/being taken by the Government to meet this demand?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b): Electricity is a concurrent subject. The supply of electricity to its consumers including in villages is the responsibility of the States/State power utilities. All inhabited census villages have been electrified. The state-wise electrification of inhabited un-electrified census villages under Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) during the last two years i.e. 2017-18 & 2018-19 is given at Annexure. As regard Tamil Nadu, all the inhabited census villages are stated to have been electrified by the end of 2014-15.

The Energy requirement in the country has increased to 1,274,595 Million Units (MU) during the year 2018-19 from 1,213,326 MU during 2017-18. This also includes increase in electricity demand of the villages across the country.

(c) & (d): No difficulty is being faced in meeting the demand of electricity in the country. As on 31.10.2019, the installed generation capacity in the country has been around 3,64,960 Mega Watt (MW), which is sufficient to meet the electricity demand in the country.

(e) & (f): As per the information received from Tamil Nadu Generation and Distribution Corporation Limited (TANDEDCO), there is no electricity shortage anywhere in Tamil Nadu.

ANNEXURE**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 2989 ANSWERED IN THE LOK SABHA ON 05.12.2019.**

State-wise electrification of inhabited un-electrified census villages under DDUGJY during the last two years i.e. 2017-18 and 2018-19

Sl. No.	Name of the State	2017-18	2018-19	Total
1	Andhra Pradesh	-	-	-
2	Arunachal Pradesh	854	280	1,134
3	Assam	572		572
4	Bihar	332	264	596
5	Chhattisgarh	348	31	379
6	Gujarat	-	-	-
7	Haryana	-	-	-
8	Himachal Pradesh	-	-	-
9	Jammu & Kashmir	35	62	97
10	Jharkhand	613	116	729
11	Karnataka	25		25
12	Kerala			-
13	Madhya Pradesh	44	5	49
14	Maharashtra		80	80
15	Manipur	77	93	170
16	Meghalaya	218	151	369
17	Mizoram	14		14
18	Nagaland	2		2
19	Odisha	544	381	925
20	Punjab	-	-	-
21	Rajasthan	1		1
22	Sikkim	-	-	-
23	Tamil Nadu	-	-	-
24	Telangana	-	-	-
25	Tripura	-	-	-
26	Uttar Pradesh	9	22	31
27	Uttarakhand	43	30	73
28	West Bengal	5		5
Total		3,736	1,515	5,251
