LOK SABHA STARRED QUESTION NO.373 ANSWERED ON 18.07.2019

SCHEMES IN POWER SECTOR

†*373. SHRI KAPIL MORESHWAR PATIL: SHRI KANAKMAL KATARA:

Will the Minister of POWER be pleased to state:

- (a) the details of schemes/ programmes introduced/ launched in the power sector in various States, State/UT-wise including Maharashtra and Rajasthan;
- (b) the quantum of funds allocated, sanctioned, released and utilized thereunder during the last three years and the current year, State/UT-wise;
- (c) the number of households deprived of power facility in the rural and urban areas of the country, category-wise including Scheduled Castes/Scheduled Tribes and others; and
- (d) the total number of villages electrified in the country during the last two years and the current year?

ANSWER

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): A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF STARRED QUESTION NO.373 ANSWERED IN THE LOK SABHA ON 18.07.2019 REGARDING SCHEMES IN POWER SECTOR.

- (a) & (b): The following schemes / programmes have been introduced / launched in the Power Sector in various States:
- i. Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY): Government of India launched Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) in December, 2014 for various rural electrification works including separation of agriculture and non-agriculture feeders, strengthening and augmentation of sub-transmission & distribution infrastructure, metering at distribution transformers/feeders/consumers and electrification of villages across the country. Erstwhile rural electrification schemes stand subsumed in it. The DDUGJY Scheme has a total outlay of Rs. 75893.00 crore including a budgetary support of Rs. 63027.00 crore from the Government of India during the entire implementation period Under DDUGJY, projects worth Rs. 42,676.67 crore have been sanctioned. In addition, an amount of Rs.14,270.33 crore has also been sanctioned for creation of additional infrastructure to cater to the requirement of households electrification being executed under Saubhagya. The State-wise details of DDUGJY is at Annexure I.
- ii. The Integrated Power Development Scheme (IPDS): The scheme was approved by the Government of India on 20.11.2014 with the aim to provide quality and reliable power supply in the urban areas with the following components:
 - Strengthening of Sub-transmission and Distribution network in urban areas;
 - Metering of feeders/distribution transformers/consumers in urban areas;
 - IT enablement of distribution sector and strengthening of distribution network, being undertaken under R-APDRP (Restructured Accelerated Power Development and Reforms Programme)

The IPDS Scheme has a total outlay of Rs. 32,612 crore including a budgetary support of Rs. 25,354 crore from the Government of India during the entire implementation period. Projects worth Rs. 32,059 crore have been sanctioned in 546 circles of 32 states/UTs and Rs. 8,648 crore have been disbursed. State-wise details are placed at Annexure - II.

iii. Pradhan Mantri Sahaj Bijli Har Ghar Yojana (Saubhagya): Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana – "Saubhagya" in October, 2017 with an outlay of Rs. 16,320 crore 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 by March, 2019. Projects worth Rs.14017.39 crore have been sanctioned under the scheme.

There is no upfront allocation of funds for any State under DDUGJY and Saubhagya. Funds are released against sanctioned projects in instalments based on the pre defined milestones and fulfilment of stipulated conditions under DDUGJY and Saubhagya. During the last three years and current year, Grant of Rs. 33,820 crore was disbursed under DDUGJY. During the last two years and current year Rs. 4340 crore was disbursed under Saubhagya. The State-wise details of Saubhagya is at Annexure-III.

iv. Power System Development Fund (PSDF): This is a regulatory fund constituted by Central Electricity Regulatory Commission (CERC) vide CERC notification dated 9th June, 2014 in line with the 'Scheme for operationalization of the PSDF' approved by GOI and communicated by the Ministry of Power vide letter dated 10th January, 2014.

The funds from PSDF are utilized for the categories of projects as given below.

- Creating necessary transmission systems of strategic for relieving congestion in Inter-State Transmission Systems (ISTS) and intra-state system which are incidental to the ISTS.
- Installation of shunt capacitors, series compensators and other reactive energy generators for improvement of voltage profile in the Grid.
- Installation of standard and special protection schemes, pilot and demonstrative projects, projects for setting right the discrepancies identified in the protection audits on regional basis, any communication/measurement/ monitoring scheme including installation of Phasor Measurement Units (PMUs)
- Renovation and Modernization (R&M) of transmission and distribution systems for relieving congestion.
- Any other scheme/project in furtherance of the above objectives, such as, conducting technical studies and capacity building, etc.

A cumulative amount of Rs.15,329.04 crore (as on 31.5.2019) has been transferred from the Regulatory pool Accounts maintained by RLDCs/NLDC to Public Account through Ministry of Power.

So far 140 Schemes have been approved for PSDF funding with a sanctioned Grant of Rs.11,282,.41 crore. The details of State wise, including Maharashtra & Rajasthan, Grant amount sanctioned and released under PSDF is at Annexure-IV.

- v. The following two distribution strengthening schemes in NER States have been launched, for which POWERGRID is the implementation agency:
 - a) North Eastern Region Power System Improvement Project (NERPSIP) for Six (6) States (Assam, Manipur, Meghalaya, Mizoram, Tripura and Nagaland) for strengthening of the Intra-State Transmission and Distribution Systems (33kV and above)' sanctioned on 1st December 2014 at an estimated cost of Rs. 5111.33 crore. The scheme was approved to be funded by the Government of India through the Budget of Ministry of Power and The World Bank on 50:50 basis. Under the scheme, an amount of Rs.2040.31 crore has been released to POWERGRID, out of which Rs.1367.69 crore have been spent as on 31st May 2019.
 - b) Comprehensive Scheme for strengthening of Transmission & Distribution in Arunachal Pradesh and Sikkim was sanctioned on 10th October 2014 at an estimated cost of Rs. 4754.42 crore as per following breakup:
 - i. For Arunachal Pradesh: Rs. 3199.45 crore including consultancy fee of Rs. 373.64 crore.
 - ii. For Sikkim: Rs. 1554.97 crore including consultancy fee of Rs. 171.82 crore.

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The entire cost of the project will be borne by the Government of India through the Plan Scheme of Ministry of Power.

Under the scheme, an amount of Rs.1564.25 crore has been released to POWERGRID, out of which Rs.1211.91 crore have been spent as on 31st May 2019.

vi. Renewable Energy Management Centre: Renewable Energy Management Centre (REMC) is being implemented for Forecasting and Scheduling as well as management of RE Power in various states, such as Karnataka, Tamil Nadu and Andhra Pradesh (Southern Region); Gujarat, Maharashtra and Madhya Pradesh (Western Region); and Rajasthan (Northern Region) at 11 REMC control centres (Western Region-4, Southern Region-4 and Northern Region-3) have been approved under the scheme with sanctioned cost of Rs.409 crore. The region-wise expenditure status under the scheme is as under:

Southern Region – Rs.10.83 crore Western Region – Rs.20.25 crore Northern Region – Rs.4.76 crore

- vii. Energy Conservation Schemes: Under Energy Conservation Schemes, financial assistance provided to the State Governments for Strengthening of State Designated Agencies (SDAs) to promote efficient use of energy and its conservation, and for Contribution to State Energy Conservation Fund (SECF). Details of funds released and utilized under the scheme are at Annexure-V.
- viii. Ujwal Discom Assurance Yojana (UDAY) has been launched by Govt. of India in November, 2015 for financial and operational turnaround of State owned Power Distribution Companies (DISCOMs). So far, 27 States and 05 Union Territories (UTs) including Maharashtra and Rajasthan have signed MoU with Govt. of India under UDAY. UDAY is not a project financing scheme.
 - ix. National Electricity Fund (Interest Subsidy) Scheme: Govt. of India has approved the National Electricity Fund (NEF) Scheme in 2012 to promote capital investment in the distribution sector by providing interest subsidy, link with reform measures, on the loan taken by public and private utilities for various capital works under Distribution projects. The scheme shall be applicable in the entire country and all the distribution projects (except R-APDRP and RGGVY) would be covered. Interest Subsidy is released to the eligible DISCOMs on the basis of recommendation of independent evaluator/REC Ltd. (Nodal Agency) and thereafter approval of the Steering Committee headed by Secretary (Power). Interest Subsidy is released to the nodal agency i.e. REC Ltd for releasing the same to concerned DISCOMs. So far, interest subsidy of Rs.208.07 Crores has been released to various DISCOMs under the scheme as per Annexure-VI.
 - (c): All the States have declared electrification of all households, on Saubhagya Portal as on 31.03.2019, except 18,734 households in LWE affected areas of Chhattisgarh. Now state of Rajasthan has informed on 01July 2019 that there are 145528 un-electrified households in the state.
 - (d): Hon'ble Prime Minister in his address to the nation on 15th August 2015 announced that the remaining un-electrified villages in the country would be electrified within the next 1000 days. As per information furnished by the States, all the inhabited census villages in the country stood electrified on 28th April, 2018, much before the target date. During the year 2017-18 and 2018-19, total 5,251 un-electrified census villages were electrified across the country.

Sta	te-wise funds disbursed		•	-	infra) during the l	ast three
		years	and current	year.		
					•	Rs. in crore)
Sr. No.	Name of the State	2016-17	2017-18	2018-19	2019-20 (up to 31.05.2019)	Total
1	Andhra Pradesh	128	165	175	3	471
2	Arunachal Pradesh	101	81	160		342
3	Assam	598	401	1088	24	2110
4	Bihar	1292	763	2412	117	4584
5	Chhattisgarh	126	552	79	21	777
6	Gujarat	110	143	181		435
7	Haryana		45	22		67
8	Himachal Pradesh			15		15
9	J&K		65	542	21	629
10	Jharkhand	327	862	1362	10	2561
11	Karnataka	145	204	451	50	850
12	Kerala	134	87	57		278
13	Madhya Pradesh	421	600	952	5	1977
14	Maharashtra	257	143	481.67	5.34	887
15	Manipur	36	33	41	0	111
16	Meghalaya	26	58	155	118	355
17	Mizoram	14	42	35		91
18	Nagaland	21	24	55		100
19	Odisha	1079	366	1360	36	2841
20	Punjab		15	42		57
21	Rajasthan	347	782	1246	17	2391
22	Sikkim		18	21		39
23	Tamil Nadu	110	2	244		356
24	Telangana	27	60	61		148
25	Tripura	78	62	112		251
26	Uttar Pradesh	2262	3149	3560	3	8974
27	Uttarakhand	16	33	270		319
28	West Bengal	273	241	1281		1795
29	Goa			3.27		3
30	D&N Haveli			1		1
31	Puducherry	1		0		1
32	Andaman Nicobar		1			1
	Grand Total	7930	8997.40	16464	429	33820

SANCTION-DISBURSEMENT STATUS UNDER IPDS

(in Rs. Crore)

						(in Rs. Cror
	SANCTION	DISBURSE	DISBURSE	DISBURSE	DISBURSE	DISBURSED
State	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
	CUM.	16-17	17-18	18-19	19-20	CUMULATIVE
Haryana	447	24	13	30	0	66
HP	190	9	2	21	0	33
J&K	521	3	35	0	0	38
Punjab	465	20	29	20	0	69
Rajasthan	1681	130	99	0	0	229
UP	5427	631	635	1008	20	2380
Uttarakhand	725	16	33	87	0	136
Delhi	198	0	0	33	0	33
MP	1803	101	71	123	170	470
Gujarat	1334	175	130	120	0	453
Chhattisgarh	656	0	40	1	0	71
Maharashtra	2580	197	160	81	32	470
Goa	84	0	2	0	0	2
AP	941	67	232	18	0	349
Telangana	769	39	70	223	0	333
Karnataka	1514	69	130	350	37	586
Kerala	736	108	0	0	0	108
Tamil Nadu	1854	29	250	24	0	304
Puducherry	22	0	0	4	0	4
A&N islands	18		1	0	0	1
Bihar	3161	321	20	18	266	640
Jharkhand	790	44	89	160	0	292
West Bengal	3059	112	319	45	545	1086
Odisha	1238	183	0	247	126	555
Assam	742	0	103	0	4	157
Arunachal			_	_	_	
Pradesh	159	13	0	0	0	13
Nagaland	138	4	7	8	12	31
Manipur	157	21	0	64	0	96
Meghalaya	108	5	0	9	0	15
Mizoram	111	12	0	3	5	20
Sikkim	161	0	1	9	0	10
Tripura	221	0	8	6	14	34
Total	32059	2333	2479	2713	1230	9081
. ota.	02000	2000	24.0	27.10	.200	

4,340

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ANNEXURE REFERRED TO IN PARTS (a) & (b) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 373 ANSWERED IN THE LOK SABHA ON 18.07.2019 **REGARDING SCHEMES IN POWER SECTOR.**

	State-wise grant disbursed under Saubhagya scheme since launch of the scheme i.e. 11.10.2017.				
					(Rs Crore)
SL No.	Name of the State	2017-18	2018-19	2019-20 (upto 31.05.2019)	Total
1.	Arunachal Pradesh	-	139	2	141
2.	Assam	42	403	-	445
3.	Bihar	115	199	-	314
4.	Chhattisgarh	43	219	-	262
5.	Himachal Pradesh	-	1	3	4
6.	J&K	2	51	-	53
7.	Jharkhand	70	83	-	152
8.	Kerala	15	-	-	15
9.	Madhya Pradesh	260	147	-	407
10.	Maharashtra	15	140	7	162
11.	Manipur	6	35	-	41
12.	Meghalaya	-	98	41	139
13.	Mizoram	-	35	-	35
14.	Nagaland	5	34	-	39
15.	Odisha	76	168	-	245
16.	Rajasthan	-	103	17	120
17.	Tripura	-	237	-	237
18.	Uttar Pradesh	864	523	-	1,387
19.	Uttarakhand	13	22	-	36
20.	West Bengal	14	73	20	107

2,709

1,541

Total

(Rs. In Crores)

	State wise -Status of Schemes funded from PSDF				
					6/30/2019
SI No	State	Approved Proposals	Accepted Estimated Cost	Grant Sanctioned	Grant Released
1	Andhra Pradesh	5	492.50	329.26	123.39
2	Arunachal Pradesh	2	20.18	20.18	0.00
3	Assam	3	356.15	356.15	146.72
4	Bihar	3	147.02	132.32	61.70
5	Chhattisgarh	3	219.46	139.16	0.00
6	Delhi	1	125.98	113.38	49
7	Gujarat	9	670.36	400.70	30.62
8	Haryana	2	539.78	360.95	28.35
9	Himachal Pradesh	3	98.48	89.14	37.62
10	Jammu & Kashmir	2	286.15	286.15	98.86
11	Jharkhand	2	198.20	160.49	39.04
12	Karnataka	3	340.54	205.06	76.76
13	Kerala	6	726.76	581.80	395.09
14	Madhya Pradesh	8	601.31	375.69	68.62
15	Maharashtra	11	237.96	191.85	21.59
16	Manipur	4	57.26	53.19	31.90
17	Meghalaya	4	107.06	107.06	77.15
18	Mizoram	2	28.81	28.81	23.87
19	Nagaland	2	42.08	42.08	32.90
20	Odisha	6	330.83	277.58	53.556
21	Puducherry	2	17.93	13.19	0.95
22	Punjab	4	133.54	93.74	15.11
23	Rajasthan	6	969.12	570.22	130.09
24	Sikkim	1	20.00	10	0
24	Tamil Nadu	8	694.76	500.9	93.11
25	Telangana	5	359.34	247.73	99.43
26	Tripura	2	31.05	33.37	26.1
27	Uttar Pradesh	4	385.54	325.49	136.13
28	Uttarakhand	2	162.51	143.78	103.62
29	West Bengal	8	482.28	395.06	125.51
30	Central Sector	17	7884.95	4697.93	4321.794
	Total	140	16767.89	11282.41	6448.57

Details of funds released to the SDAs and funds utilized by them are as follows

		Strengthening of SDAs					
		Fund I	Released	Fund U (as on 30			
SI.	Name of State/UT		2019-20	(43 011 00	10012013)		
No.		2016-19	(on July 8,	2016-19	2019-20		
			2019)				
		Rs. In Lakh					
1	Andaman & Nicobar Islands	326.06	15.00	290.16	0.00		
2	Andhra Pradesh	253.33	80.00	100.14	0.00		
3	Arunachal Pradesh	285.00	65.00	248.00	0.00		
4	Assam	170.00	67.00	114.37	0.00		
5	Bihar	177.00	15.00	136.20	0.00		
6	Chandigarh	34.00	15.00	4.28	0.00		
7	Chhattisgarh	208.75	55.80	129.07	0.00		
8	Dadra & Nagar Haveli	0.00	0.00	0.00	0.00		
9	Daman & Diu	75.00	5.50	14.00	0.00		
10	Delhi	58.00	40.00	12.70	0.00		
11	Goa	42.00	0.00	0.00	0.00		
12	Gujarat	217.00	60.00	184.15	0.00		
13	Haryana	177.34	55.00	123.88	0.00		
14	Himachal Pradesh	99.00	42.50	7.27	0.00		
15	Jammu & Kashmir	46.50	0.00	0.00	0.00		
16	Jharkhand	119.10	0.00	0.00	0.00		
17	Karnataka	370.00	40.00	213.80	0.00		
18	Kerala	389.10	75.00	364.10	0.00		
19	Lakshadweep	32.00	29.00	19.23	0.00		
20	Madhya Pradesh	179.00	76.50	176.90	0.00		
21	Maharashtra	254.00	50.00	21.00	0.00		
22	Manipur	0.00	0.00	0.00	0.00		
23	Meghalaya	124.00	47.50	83.66	0.00		
24	Mizoram	148.50	53.00	135.62	0.00		
25	Nagaland	197.00	53.00	197.00	0.00		
26	Odisha	117.40	0.00	114.77	0.00		
27	Puducherry	146.10	91.00	26.10	0.00		
28	Punjab	283.00	55.00	283.00	0.00		
29	Rajasthan	95.00	10.00	45.27	0.00		
30	Sikkim	113.00	67.00	100.00	0.00		
31	Tamil Nadu	134.00	10.00	0.00	0.00		
32	Telangana	291.31	81.00	240.51	0.00		
33	Tripura	144.70	35.00	62.58	0.00		
34	Uttar Pradesh	249.86	100.00	157.15	0.00		
35	Uttarakhand	277.50	70.00	182.51	0.00		
36	West Bengal	175.15	84.00	118.56	0.00		

<u>Statement showing the Interest Subsidy released under National Electricity Fund</u> (Interest-Subsidy) Scheme

State	Utility/DISCOMs	Interest Subsidy (Rs. In Lakh)
	CESCOM	732.78859
Karnataka	MESCOM	127.6458
	BESCOM	5269.05
	HESCOM	260.89
	Total	6390.37439
Punjab	PSPCL	97.84
	DHBVNL	388.09
Haryana	UHBVNL	380.68
_	Total	768.77
Gujarat	MGVCL	367.86
	MPPoKVVCL	239.77
Madhya Pradesh	MPMKVCL	3.33
,	Total	243.1
West Bengal	WBSEDCL	1824.11
	APSPDCL	843.49
Andhra Pradesh	APEPDCL	114.29432
	Total	957.78432
Telangana	TSSPDCL	1544.27498
	TSNPDCL	154.43
	Total	1698.70498
	BEST	420.1
Maharashtra	MSEDCL	4475.95
	Total	4896.05
	AVVNL	623.79649
Rajasthan	JdVVNL	1599.11
_	JVVNL	1010.83424
	Total	3233.74073
Uttarakhand	UPCL	267.08
Chhattisgarh	CSPDCL	62.04
Gra	nd -Total	20807.45442

LOK SABHA STARRED QUESTION NO.376 ANSWERED ON 18.07.2019

POWER EXCHANGES

*376. SHRI Y.S. AVINASH REDDY:
SHRI KOMATI REDDY VENKAT REDDY:

Will the Minister of POWER be pleased to state:

- (a) whether the Government has setup Power Exchanges in the power/energy sector as stressed assets have been increasing year by year in this sector;
- (b) if so, the details thereof;
- (c) whether introduction of Power Exchanges has helped the sector in reducing the losses and if so, the details thereof;
- (d) whether the desired objectives/results have been achieved by setting up these Power Exchanges; and
- (e) if so, the details thereof?

ANSWER

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 (e): A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF STARRED QUESTION NO.376 ANSWERED IN THE LOK SABHA ON 18.07.2019 REGARDING POWER EXCHANGES.

(a) to (e): As per the Sections 66 of Electricity Act, 2003, the Appropriate Commission shall endeavour to promote the development of a market (including trading) in power in such manner as may be prescribed. The Power exchange is a Market Infrastructure Institution that provides a fair and competitive market place for trading in electricity. There are two power exchanges in the country i.e. Indian Energy Exchange Limited (IEX) and Power Exchange of India Limited (PXIL), which were set up in the year 2008.

All Discoms, Generation utilities including IPPs, Traders and Open Access consumers spread across the country, actively participate in the exchanges to meet their power requirements. A robust payment security mechanism adopted by the Power exchanges has led to no default/delay in payment.

Power Exchanges have also played key role in supporting revival of stressed thermal power plants (without PPAs) by providing them a platform to sell power though Power exchanges. Competitive price discovery takes place at the power exchanges in India. The power exchange transactions are around 3.5%-4% of total generation.

The year-on-year data of weighted average price and volume of the electricity transacted through Power Exchanges is at Annexure. The volume of electricity transacted through Power Exchanges has increased at an annual growth rate of 34% during 2008-09 to 2018-19, whereas the weighted average price of the electricity transacted through Power Exchanges has declined from Rs. 7.49/kWh in 2008-09 to Rs. 4.26/kWh in 2018-19.

The year-on-year data of weighted average Price and Volume of the Electricity transacted through Power Exchanges:

Year	Volume of Electricity transacted through Power Exchange* (BU)	Weighted Average Price of Electricity transacted through Power Exchange (Rs./kWh)
2008-09	2.77	7.49
2009-10	7.19	4.96
2010-11	15.52	3.47
2011-12	15.54	3.57
2012-13	23.54	3.67
2013-14	30.67	2.90
2014-15	29.40	3.50
2015-16	35.01	2.72
2016-17	41.12	2.50
2017-18	47.70	3.45
2018-19	53.52	4.26

^{*}Volume includes electricity transacted through day ahead and term ahead market at both the power exchanges i.e. IEX and PXIL

LOK SABHA UNSTARRED QUESTION NO.4115 ANSWERED ON 18.07.2019

INCREASE IN SHARE OF POWER

†4115. SHRI CHANDESHWAR PRASAD:

Will the Minister of POWER be pleased to state:

- (a) whether the power share of State of Bihar has been increased in the allocated share of central power units of eastern region; and
- (b) if so, the total increase in mega watts a result of this?

ANSWER

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): The share of power allocated from Central Generating Station (CGS) to Bihar has increased from 1918 MW as on 31.03.2014 to 3709 MW as on 31.05.2019. Thus the allocation of power from CGS has been enhanced by 1791 MW.

LOK SABHA UNSTARRED QUESTION NO.4126 ANSWERED ON 18.07.2019

SUBSIDIES IN POWER SECTOR

4126. SHRI CHANDRA SEKHAR SAHU:

Will the Minister of POWER be pleased to state:

- (a) whether the Union Government has prepared a scheme with the State Governments to provide electricity connection to every poor household in the country and if so, the details thereof;
- (b) the steps taken or suggested to plug DISCOMs losses;
- (c) whether there is a need to route subsidies in power sector through Direct Benefit Transfer (DBT) and if so, the details thereof;
- (d) the steps taken to streamline the subsidies in power sector; and
- (e) whether a mechanism is needed to be put in place so that power from most efficient plants is utilized first to bring down electricity prices and if so, the guidelines issued in this regard?

ANSWER

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): Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana-"Saubhagya" with the objective to achieve universal household electrification by providing electricity connections to all the remaining unelectrified households in rural and all poor households in urban areas across the country by March, 2019. Under the scheme free connections are given to poor households, and Rs. 500 per connection in 10 equal installment along with bill would be collected from others.

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- (b): The Government of India launched Ujwal Discom Assurance Yojana (UDAY) in November, 2015 for operational & financial turn around of utilities. The Government has taken several measures to reduce DISCOM losses which includes amongst others close monitoring of billing, collection and overall DISCOM performance, identification of divisions with high AT&C losses and capability building of utilities in reducing AT&C losses. Government of India supports States through schemes such as Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development Scheme (IPDS), which help them in infrastructure development as well as reducing losses.
- (c) & (d): As per the provisions of Electricity Act 2003 ("Act"), Retail Supply Tariff is determined by the respective State Electricity Regulatory Commissions (SERCs). As per Section 65 of the Act, State Governments may grant subsidy to any consumer or class of consumers in the tariff determined by the SERCs. The extant Tariff Policy provides that direct subsidy is a better way to support the weaker sections of consumers than the mechanism of cross-subsidizing the tariff across the board.
- (e): At present power is procured by Distribution Licenses based on Merit Order despatch. A mechanism of Security Constrained Economic Despatch (SCED) for Inter State Generating Stations pan India has been issued by Central Electricity Regulatory Commission on 31.01.2019.

LOK SABHA UNSTARRED QUESTION NO.4128 ANSWERED ON 18.07.2019

LIGNITE BASED POWER GENERATION UNIT

†4128. SHRI ASHOK KUMAR RAWAT:

Will the Minister of POWER be pleased to state:

- (a) whether the Government proposes to set up a lignite based power generation unit, a joint venture of Uttar Pradesh State Power Generation Corporation and the Central Government at Ghatampur in district Kanpur of Uttar Pradesh;
- (b) if so, the details along with the status thereof;
- (c) the amount estimated to be spent on the setting up of the said unit; and
- (d) the time by which the said unit is likely to be set up?

ANSWER

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): No Lignite based power generation unit is proposed to be set up at Ghatampur, Kanpur District, Uttar Pradesh. However, a Super critical coal fired power project of capacity 1,980 MW (3x 660 MW) is under construction at Ghatampur Tehsil in Kanpur district of Uttar Pradesh. The project is being developed by M/s Neyveli Uttar Pradesh Power Limited (NUPPL), which is a joint venture of Neyveli Lignite Corporation India Limited (Govt. of India Enterprise) and Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL) (Govt. of Uttar Pradesh).
- (b): Currently, the power plant equipment erection is under progress.
- (c): As per the information submitted by NUPPL, the estimated project cost is Rs. 17,237.80 crores in which shares of NLC India Ltd. and Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. are 51% and 49% respectively.
- (d): The three units of the power plant are scheduled for commissioning as follows:
 - i. Unit-1 26.11.2020
 - ii. Unit-2 26.05.2021
 - iii. Unit-3 26.11.2021

LOK SABHA UNSTARRED QUESTION NO.4129 ANSWERED ON 18.07.2019

SAMADHAN

4129. SHRI KANUMURU RAGHU RAMA KRISHANA RAJU: SHRI KOMATI REDDY VENKAT REDDY: SHRI Y.S. AVINASH REDDY:

Will the Minister of POWER be pleased to state:

- (a) whether the Government has come up with Scheme of Asset Management and Debt Change Structure (SAMADHAN) to propose sale or takeover of the stressed assets of the power plants to prevent their liquidation;
- (b) if so, the details thereof;
- (c) whether the task has been assigned to SBI to finalize the scheme and if so, the status thereof;
- (d) the number of power plants that were considered under the said scheme; and
- (e) the status of the implementation of the said scheme as on date?

ANSWER

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): A Scheme of Asset Management and Debt Change Structure (SAMADHAN) has been suggested by State Bank of India (SBI) for the purpose of resolution of stressed assets in Power Sector in a transparent price discovery process with an aim to maximize recovery efforts from such assets. The plan envisages implementation of the scheme with cooperation and consent of promoters.
- (d) & (e): Total 14 Power Plants were considered under the scheme. The details of resolution process initiated/ being initiated in these accounts is as under:

S No.	Resolution Process initiated/ being initiated	No of accounts
	Resolution already implemented	
1	Change in management	1
	Resolution Under Process	
2	One Time Settlement (OTS) with existing promoters	3
3	Change of management	3
4	Restructuring under same promoters	3
5	Referred/ Admitted to NCLT	4
	Total number of accounts	14

LOK SABHA UNSTARRED QUESTION NO.4132 ANSWERED ON 18.07.2019

DEFINITION OF ELECTRIFIED VILLAGE

4132. DR. SHASHI THAROOR:

Will the Minister of POWER be pleased to state:

- (a) the total number of villages electrified under Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), State/UT-wise;
- (b) the total number of villages with electricity connections to every households out of the aforesaid number of villages, State/UT-wise;
- (c) whether for a village to be considered 'electrified', only 10% of households in a village needs to be electrified and if so, the details thereof;
- (d) whether the Government proposes to change the definition of village electrification to electrification of 100% of households in a village; and
- (e) if so, the details thereof and if not, the reasons therefor?

ANSWER

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 across the country stand electrified on 28.04.2018. There were 18,452 un-electrified villages in the country as reported by the States on 01.04.2015. Additional 1,227 villages were subsequently reported un-electrified by the States. During the execution of the programme 1305 villages were found un-inhabited/permanent grazing reserve; and remaining 18,374 villages were electrified. State-wise details are at Annexure.

Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana–Saubhagya, in October 2017, with the aim to achieve universal household electrification by providing electricity connections to all un-electrified households in rural and all poor households in urban areas across the country, by 31st March, 2019. All States have declared electrification of all households on Saubhagya portal, except 18,734 households in LWE affected areas of Chhattisgarh as on 31.03.2019.

- (c): The definition of village electrification has lost its significance since launch of Pradhan Mantri Sahaj Bijli Har Ghar Yojana Saubhagya on 11.10.2017 which provides for last mile connectivity and electricity connections to all un-electrified households in rural and all poor households in urban areas across the country.
- (d) & (e): Does not arise in view of (c) above.

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 4132 ANSWERED IN THE LOK SABHA ON 18.07.2019.

Status of villages Electrification in the Country (State-wise)

SI. No.	State	No. Of un-electrified Villages reported by the States as on 01.04.2015	No. of un- electrified villages subsequently reported by the States	Total Un- electrified villages	Villages found un- inhabited/ permanent grazing reserve	Total No. Of Villages Electrified
1	2	3	4	5 = (3)+(4)	6	7 = (5)-(6)
1	Arunachal Pr.	1578	77	1655	172	1483
2	Assam	2892		2892	160	2732
3	Bihar	2747	267	3014	108	2906
4	Chhattisgarh	1080		1080	2	1078
5	Himachal Pr.	35		35	7	28
6	J&K	134		134	5	129
7	Jharkhand	2525	120	2645	62	2583
8	Karnataka	39		39		39
9	Madhya Pr.	472		472	50	422
10	Maharashtra		88	88	8	80
11	Manipur	276	95	371	5	366
12	Meghalaya	912	154	1066	15	1051
13	Mizoram	58		58	4	54
14	Nagaland	82		82	4	78
15	Odisha	3474	386	3860	579	3281
16	Rajasthan	495		495	68	427
17	Tripura	26		26		26
18	Uttar Pr.	1529	22	1551	53	1498
19	Uttarakhand	76	18	94	3	91
20	West Bengal	22		22		22
	Total	18452	1227	19679	1305	18374

LOK SABHA UNSTARRED QUESTION NO.4142 ANSWERED ON 18.07.2019

POLLUTION CAUSED BY COAL BASED POWER PLANTS

†4142. SHRI NIHAL CHAND:

Will the Minister of POWER be pleased to state:

- (a) whether the Government has conducted any study to evaluate the pollution caused by the coal based power plants in the country;
- (b) if so, the details of the loss of life and property due to this pollution during the last two years; and
- (c) the effective steps taken by the Government to prevent the pollution caused by the coal based power plants?

ANSWER

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 Power/Central Electricity Authority have not conducted any study to evaluate the pollution caused by coal based thermal power plants in the country. Further, Central Pollution Control Board (CPCB) has also informed that it has not conducted any study to evaluate the pollution caused by coal based thermal power plants in the country.
- (c): Government have taken the following steps to reduce the pollution level of coal based thermal power plants in the country:
 - i. Ministry of Environment, Forest and Climate Change (MoEF&CC) notified new environmental norms for Particulate Matter, Sulphur Oxides (SOx), Nitrogen Oxides (NOx), Water consumption and Mercury, for Thermal Power Plants on 7th December 2015 and amendment dated 28.06.2018.

.....2.

- iii. 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) in plants for a capacity of 1,61,402 MW (414 Units) and upgradation of Electrostatic Precipitator 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.
- iii. Use of fly ash within 300 kilometers from coal based Thermal Power Plants in all construction activities has been notified through MoEF&CC notification dated 25.01.2016.

LOK SABHA UNSTARRED QUESTION NO.4153 ANSWERED ON 18.07.2019

COVERAGE OF SAUBHAGYA

4153. SHRI BHAGWANTH KHUBA:

Will the Minister of POWER be pleased to state:

- (a) the details of the coverage of villages for electrification under Pradhan Mantri Sahaj Bijli Har Ghar Yojana–Saubhagya during each of the last three years, State/UT-wise including Karnataka;
- (b) the details of the estimated requirement of electricity in the country and the quantum of electricity available at present; and
- (c) the details of the assessment made by the Government on the loss of electricity during transmission and distribution in terms of quantity and revenue in order to address the issue?

ANSWER

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): Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana–Saubhagya in October, 2017 with the objective to achieve universal household electrification by providing electricity connections to all willing un-electrified households in rural and all poor households in urban areas across the country, by March, 2019. As reported by the States, 2.628 crore households were electrified up to 31.03.2019 across the country including Karnataka, since launch of the scheme on 11.10.2017. State-wise detail is at Annexure.
- (b): 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.
- (c): As reported by the States on Ujwal DISCOM Assurance Yojana (UDAY) portal, provisional Aggregate Technical & Commercial (AT&C) loss for India was 18.29% in 2018-19.

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4153 ANSWERED IN THE LOK SABHA ON 18.07.2019.

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

SI. 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

LOK SABHA UNSTARRED QUESTION NO.4175 ANSWERED ON 18.07.2019

STATUS OF LOWER SUBANSIRI HYDROELECTRIC POWER PROJECT

4175. SHRI PALLAB LOCHAN DAS:

Will the Minister of POWER be pleased to state:

- (a) whether the Government has implemented the recommendation of the State Committee on the Lower Subansiri Hydro Electric Power Project (LSHEP)regarding the safety and environment-related issues connected with the Hydro Electric Power Project;
- (b) if so, the details thereof;
- (c) the time by which the said power project is likely to be completed; and
- (d) the estimated cost of the whole project and the extra amount required due to the delay of the project?

ANSWER

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): No Committee for Subansiri Hydro Electric Project has been constituted by the State Government of Assam.

However, various technical committees / groups such as Expert Group (EG), Technical Expert Committee (TEC), Joint Steering Committee (JSC), Dam Design Review Panel (DDRP) and Project Oversight Committee (POC) were constituted from time to time by Govt. of India and NHPC to examine the safety aspects and downstream impact of the Project. Meanwhile, two Petitions were filed before Hon'ble National Green Tribunal (NGT). Hon'ble NGT directed MoEF&CC to set up a three-member Expert Committee and stop the construction of the Project, except the works of emergency nature for maintenance and for public safety purpose. This Expert Committee was constituted by MoEF&CC on 27.11.2017. The Committee submitted its recommendations to MoEF&CC on 26.03.2019. The recommendations of the Expert Committee have been appraised by the Expert Advisory Committee (EAC) and accepted by the Government subject to the final order of Hon'ble NGT for its implementation. The matter is still sub-judice in Hon'ble NGT.

- (c): Project is likely to be commissioned within 4 years after resumption of works.
- (d): Investment approval was accorded to the Project in 2003 for Rs.6285 Crs (Dec'02 Price Level). The estimated Revised cost of the Project is Rs.20850.67 Crs. (April, 2019 Price Level).

LOK SABHA UNSTARRED QUESTION NO.4197 ANSWERED ON 18.07.2019

SETTING UP OF THERMAL POWER PLANT IN TAMIL NADU

4197. SHRI T.R.V.S. RAMESH:

Will the Minister of POWER be pleased to state:

- (a) whether the Government proposes to set up a thermal power plant in Cuddalore region of Tamil Nadu and if so, the details thereof; and
- (b) the total budget allocated and timeline fixed by the Government for setting up of thermal power plant in the said region?

ANSWER

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): After the enactment of Electricity Act 2003, generation of electricity has been de-licensed and Techno- Economic clearance of Central Electricity Authority (CEA) is not required for setting up of thermal power projects. Therefore, the proposals for thermal power projects are not being received in Ministry of Power/CEA. There is no proposal of Central Government to set up a Thermal Power Plant in Cuddalore region of Tamil Nadu.

LOK SABHA UNSTARRED QUESTION NO.4202 ANSWERED ON 18.07.2019

ELECTRIFICATION OF VILLAGES

†4202. MS. DIYA KUMARI: SHRIMATI RITI PATHAK:

Will the Minister of POWER be pleased to state:

- (a) the number of villages electrified during the last five years, State/UT-wise;
- (b) the quantum of funds spent during the said period, State/UT-wise;
- (c) the number of villages electrified and yet to be electrified in Pali, Ajmer, Nagaur and Rajsamand districts of the State of Rajasthan;
- (d) the time by which the remaining villages are likely to be electrified; and
- (e) the target in hours fixed by the Government to supply electricity in the villages every day and its present status in each State of the country?

ANSWER

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 including the districts Pali, Ajmer, Nagaur and Rajsamand of Rajasthan, stand electrified on 28.04.2018. Under Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) 19,779 census villages were electrified. An amount of Rs.41,600 crore was disbursed to the States during the last five years i.e. 2014-15 to 2018-19. The State-wise villages electrified and funds disbursed under the scheme, are at Annexure-I & II, respectively.
- (e): Supply of uninterrupted and quality power to all consumers, falls under the purview of State Governments/Power Utilities. All the States/UTs have entered into Memorandum of Understanding (MoU) with the Government of India for providing 24x7 power supply to all households, industrial & commercial consumer from April, 2019 and adequate supply of power to agricultural consumers as per State policy. Government of India is supplementing the efforts of the States through its 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). State-wise number of hours of power supply in rural areas, as reported by the States, is at Annexure-III.

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO.4202 ANSWERED IN THE LOK SABHA ON 18.07.2019.

State-wise electrification of inhabited census villages under DDUGJY during the last five years.

SI. No.	Name of the State	Number of villages electrified
1	Arunachal Pradesh	1,590
2	Assam	2,922
3	Bihar	3,247
4	Chhattisgarh	1,145
5	Himachal Pradesh	34
6	Jammu & Kashmir	138
7	Jharkhand	2,744
8	Karnataka	39
9	Madhya Pradesh	508
10	Maharashtra	80
11	Manipur	558
12	Meghalaya	1,094
13	Mizoram	101
14	Nagaland	88
15	Odisha	3,294
16	Rajasthan	497
17	Tripura	26
18	Uttar Pradesh	1,557
19	Uttarakhand	95
20	West Bengal	22
	Total	19,779

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO.4202 ANSWERED IN THE LOK SABHA ON 18.07.2019

State-wise funds disbursed under DDUGJY during the last five years.

SI. No.	Name of the State	Funds Released (Rs. In Crore)
1	Andhra Pradesh	518
2	Arunachal Pradesh	433
3	Assam	2539
4	Bihar	6667
5	Chhattisgarh	1130
6	Gujarat	505
7	Haryana	53
8	Himachal Pradesh	43
9	J&K	607
10	Jharkhand	2561
11	Karnataka	871
12	Kerala	294
13	Madhya Pradesh	2769
14	Maharashtra	925
15	Manipur	205
16	Meghalaya	238
17	Mizoram	109
18	Nagaland	148
19	Orissa	3335
20	Punjab	57
21	Rajasthan	2627
22	Sikkim	39
23	Tamil Nadu	433
24	Telangana	158
25	Tripura	349
26	Uttar Pradesh	11342
27	Uttarakhand	392
28	West Bengal	2245
29	Goa	3
30	D&N Haveli	1
31	Puducherry	1
32	Andaman Nicobar	1
	Total	41600

ANNEXURE REFERRED TO IN REPLY TO PART (e) OF UNSTARRED QUESTION NO.4202 ANSWERED IN THE LOK SABHA ON 18.07.2019

Status of Power Supply to Rural Areas

During May, 2019

State Average Hours of Power Supply in a day to Rural Areas 1 Andhra Pradesh 23.92 2 Arunachal Pradesh* 14.30 3 Assam 19.00 4 Bihar 22.07 5 Chhattisgarh 23.00 6 Gujarat 24.00 7 Haryana 17.88 8 Himachal Pradesh 24.00 9 Jammu & Kashmir 15.00 10 Jharkhand 17.83 11 Karnataka 18.63 12 Kerala 24.00 13 Madhya Pradesh 23.78 14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim*			During May, 2019			
1 Andhra Pradesh 23.92 2 Arunachal Pradesh* 14.30 3 Assam 19.00 4 Bihar 22.07 5 Chhattisgarh 23.00 6 Gujarat 24.00 7 Haryana 17.88 8 Himachal Pradesh 24.00 9 Jammu & Kashmir 15.00 10 Jharkhand 17.83 11 Karnataka 18.63 12 Kerala 24.00 13 Madhya Pradesh 23.78 14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim² 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tri	SL. No.	State				
2 Arunachal Pradesh* 3 Assam 4 Bihar 22.07 5 Chhattisgarh 6 Gujarat 7 Haryana 8 Himachal Pradesh 9 Jammu & Kashmir 15.00 10 Jharkhand 17.83 11 Karnataka 12 Kerala 13 Madhya Pradesh 14 Maharashtra 15 Manipur 15 Manipur 15 Magaland 17 Mizoram 16.10 18 Nagaland 21 Rajasthan 22 Sikkim* 23 Tamil Nadu* 24.00 25 Tripura 23.50 26 Uttar Pradesh* 23.70 24.00 23.00 24.00 25 Tripura 23.50 20 20 20 21 Calangana 24.00 25 26 Uttar Pradesh* 23.70 24.00 25 26 26 26 26 26 27 28 28 28 28 29 29 20 20 20 21 21 22 23.50 24 24 24 25 25 26 26 26 27 28 28 28 29 20 20 20 20 21 21 22 23.50 24 24 24 25 25 26 26 26 27 28 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20						
3 Assam 19.00 4 Bihar 22.07 5 Chhattisgarh 23.00 6 Gujarat 24.00 7 Haryana 17.88 8 Himachal Pradesh 24.00 9 Jammu & Kashmir 15.00 10 Jharkhand 17.83 11 Karnataka 18.63 12 Kerala 24.00 13 Madhya Pradesh 23.78 14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	1	Andhra Pradesh	23.92			
4 Bihar 22.07 5 Chhattisgarh 23.00 6 Gujarat 24.00 7 Haryana 17.88 8 Himachal Pradesh 24.00 9 Jammu & Kashmir 15.00 10 Jharkhand 17.83 11 Karnataka 18.63 12 Kerala 24.00 13 Madhya Pradesh 23.78 14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	2	Arunachal Pradesh*	14.30			
5 Chhattisgarh 23.00 6 Gujarat 24.00 7 Haryana 17.88 8 Himachal Pradesh 24.00 9 Jammu & Kashmir 15.00 10 Jharkhand 17.83 11 Karnataka 18.63 12 Kerala 24.00 13 Madhya Pradesh 23.78 14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	_	Assam	19.00			
6 Gujarat 24.00 7 Haryana 17.88 8 Himachal Pradesh 24.00 9 Jammu & Kashmir 15.00 10 Jharkhand 17.83 11 Karnataka 18.63 12 Kerala 24.00 13 Madhya Pradesh 23.78 14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	4	Bihar	22.07			
7 Haryana 17.88 8 Himachal Pradesh 24.00 9 Jammu & Kashmir 15.00 10 Jharkhand 17.83 11 Karnataka 18.63 12 Kerala 24.00 13 Madhya Pradesh 23.78 14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	5	Chhattisgarh	23.00			
8	6	Gujarat	24.00			
9 Jammu & Kashmir 15.00 10 Jharkhand 17.83 11 Karnataka 18.63 12 Kerala 24.00 13 Madhya Pradesh 23.78 14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	7	Haryana	17.88			
10 Jharkhand 17.83 11 Karnataka 18.63 12 Kerala 24.00 13 Madhya Pradesh 23.78 14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	8	Himachal Pradesh	24.00			
11 Karnataka 18.63 12 Kerala 24.00 13 Madhya Pradesh 23.78 14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	9	Jammu & Kashmir	15.00			
12 Kerala 24.00 13 Madhya Pradesh 23.78 14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	10	Jharkhand	17.83			
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14 Maharashtra 24.00 15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	12	Kerala	24.00			
15 Manipur 22.25 16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	13	Madhya Pradesh	23.78			
16 Meghalaya 17.50 17 Mizoram 16.10 18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	14	Maharashtra	24.00			
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18 Nagaland 21.00 19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	16	Meghalaya	17.50			
19 Odisha 20.08 20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	17	Mizoram	16.10			
20 Punjab 24.00 21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	18	Nagaland	21.00			
21 Rajasthan 21.00 22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	19	Odisha	20.08			
22 Sikkim* 17.13 23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	20	Punjab	24.00			
23 Tamil Nadu* 24.00 24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	21	Rajasthan	21.00			
24 Telangana 24.00 25 Tripura 23.50 26 Uttar Pradesh* 17.89	22	Sikkim*	17.13			
25 Tripura 23.50 26 Uttar Pradesh* 17.89	23	Tamil Nadu*	24.00			
26 Uttar Pradesh* 17.89	24	Telangana	24.00			
	25	Tripura	23.50			
27 Uttarakhand 23.95	26	Uttar Pradesh*	17.89			
	27	Uttarakhand	23.95			
28 West Bengal 24.00	28	West Bengal	24.00			

^{*}Arunachal Pradesh, Uttar Pradesh, Sikkim & Tamil Nadu April, 2019 data has been taken.

LOK SABHA UNSTARRED QUESTION NO.4204 ANSWERED ON 18.07.2019

CARBON FREE POWER GENERATION

†4204. SHRI RAVI KISHAN: SHRI RAVINDRA KUSHAWAHA:

Will the Minister of POWER be pleased to state:

- (a) the status of power generation in the country at present along with its demand and supply;
- (b) the details of the sources of power generation and their capacity;
- (c) the sources through which carbon free power is likely to be generated in the next ten years along with the quantum of power prescribed to be generated from these sources;
- (d) the details of the measures taken in this regard;
- (e) whether proposals have been received from the States of Rajasthan, Maharashtra and Uttar Pradesh in this regard; and
- (f) if so, the details thereof?

ANSWER

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): The details of source wise power generation and their capacity in total power production in the country during the current year 2019-20 (upto June, 2019) and the status of demand and supply of power in the country are given at Annexure-I.

(c) & (d): Hydro, Nuclear and Renewable Energy (including Solar, Wind and Biomass) are main sources from which carbon free power will be generated in the next ten years.

Electricity Generation is a delicensed activity and decision to set up any generating plants is based on a demand assessment by the concerned generator. Hence no target has been fixed in the next ten years. However, to promote clean energy Govt. of India has fixed a cumulative target of 175 GW of renewable energy based installed capacity by 2022.

The details of steps being taken by the Government to promote the production of renewable energy, inter alia, are as under:-

- Issued guidelines for procurement of solar and wind power through tariff based competitive bidding process;
- ii. Declared Renewable Purchase Obligation (RPO) up to the year 2021-22;
- iii. Notified National Offshore Wind Energy Policy;
- iv. Notified policy for Repowering of Wind Power Projects;
- v. Notified standards for deployment of solar photovoltaic systems/devices;
- vi. The waiver of Inter State Transmission System charges and losses for inter-state sale of solar and wind power for projects commissioned by March 2022 has been given.
- (e) & (f): Generation is a delicensed activity under Electricity Act 2003. Electricity Generation Projects are set up by various utilities and State/Central Public Sector Undertakings (CPSUs) keeping in view the demand for power and techo-commercial viability. As per information available with Central Electricity Authority, the details of Hydroelectric Projects & Nuclear Projects under construction in Rajasthan, Maharashtra are given at Annexure—II.

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO.4204 ANSWERED IN THE LOK SABHA ON 18.07.2019.

Source wise generation and capacity in total power production in the country during the current year 2019-20 (upto June, 2019*).

Source	Monitored Capacity as	Generation
	on 30.06.2019	2019-20
	(in MW)	(upto June, 2019
		Million Unit)
THERMAL	226324.34	287690.9
NUCLEAR	6780.00	10971.43
HYDRO	45399.22	39548.8
Bhutan Import	-	932.8
Total (conventional)	278503.56	339143.93
RENEWABLE SOURCES	79792.38	35525
Grand Total (Conventional	358295.94	374668.93
+Renewable)		

* PROVISIONAL BASED ON ACTUAL-CUM-ASSESMENT

Note: 1. Gross Generation from conventional sources (Thermal, Hydro and Nuclear) stations of 25 MW and above only.

2. Total Renewable Energy capacity as on 31.05.2019 is 79372 MW.

The demand and supply of power in the country during April-June, 2019*

Energy (Million Unit)			Peak (Mega Watt)				
Energy Requirement	Energy Supplied	Energy Not Supplied		Peak Demand	Peak Met	Demand not Met	
MU	MU	MU	%	MW	MW	MW	%
347,771	346,208	1,563	0.4	183,673	182,533	1,140	0.6

^{*}Provisional

ANNEXURE REFERRED TO IN REPLY TO PARTS (e) TO (f) OF UNSTARRED QUESTION NO.4204 ANSWERED IN THE LOK SABHA ON 18.07.2019.

Details of Hydroelectric Projects & Nuclear Projects under construction in Rajasthan, Maharashtra

State	Name of Project	Capacity (MW)	Source/Fuel	Likely commissioning
Maharashtra	Koyna Left Bank	2x40=80	Hydro	2022-23 *
Rajasthan	Rajasthan Atomic Power Plant (Unit 7 & 8)	2x700=1400	Nuclear	2021-22

^{*} Subject to restart of works

LOK SABHA UNSTARRED QUESTION NO.4209 ANSWERED ON 18.07.2019

POWER SECTOR ROADMAP

4209. SHRI BIDYUT BARAN MAHATO:

SHRI GAJANAN KIRTIKAR: SHRI SUDHEER GUPTA:

SHRI SANJAY SADASHIV RAO MANDLIK:

Will the Minister of POWER be pleased to state:

- (a) whether the Government proposes to prepare the power sector roadmap for the country;
- (b) if so, the details thereof and the aims and objectives behind this move;
- (c) whether the Government held a meeting with the key stakeholder including company executives for the said purpose recently;
- (d) if so, the details thereof along with the issues discussed and the decision taken therein; and
- (e) the steps taken/being taken by the Government to provide cheaper and uninterrupted power supply to all in the country?

ANSWER

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): With a vision to achieve a financially viable, environmentally sustainable and market-driven power sector, furthering energy security and providing reliable 24X7 power to all consumers, it has been decided to prepare a 'Five-Year Vision Document' for Power Sector. The overarching goals for the power sector inter-alia include optimal resource mix for sustainability and energy security, financial viability of power sector entities, and development of efficient, transparent power markets. The Vision Document shall incorporate strategic initiatives, key performance indicators (KPI) for delivering the stated goals of this Ministry.

- (c) & (d): A brainstorming session was held on 1st July 2019, wherein key stakeholders viz. representatives from various Ministries/Departments of the Government of India, State Governments, power generating companies, power distribution companies, industry associations, financial institutions and energy experts, were invited. In this meeting, key challenges faced by power sector, proposed reforms and strategies to be adopted for achieving the goals set in the Vision Document were discussed.
- (e): Supply of electricity falls under the purview of State Governments/DISCOMs/Power/Utilities. However, Government of India has taken a joint initiative with all the States/UTs for providing 24X7 power for all households, industrial & commercial consumers and adequate supply of power to agriculture consumers. In addition, Government of India has launched several schemes such as Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), Pradhan Mantri Sahaj Bijli Har Ghar Yojana Saubhagya and Ujjwal DISCOM Assurance Yojana (UDAY) to enable States to improve their Distribution Infrastructure.

LOK SABHA UNSTARRED QUESTION NO.4280 ANSWERED ON 18.07.2019

HIGH ELECTRICITY PRICES

†4280. SHRI A. GANESHAMURTHI: SHRI PRATAPRAO JADHAV:

Will the Minister of POWER be pleased to state:

- (a) whether the Government is aware of the high rate of electricity in the country and the common people finding it very difficult to pay the monthly electricity bill;
- (b) if so, the details thereof;
- (c) whether the Government proposes to take necessary steps to reduce the price of electricity to safeguard the consumers;
- (d) if so, the details thereof; and
- (e) if not, the reasons therefor?

ANSWER

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): The responsibility of tariff determination for retail supply of electricity lies with respective State Electricity Regulatory Commission (SERC). The tariff is being determined based on the tariff regulation issued as per the provisions of Electricity Act, 2003. The tariff regulations are framed considering various factors including safeguarding consumer interest as well as recovery of cost of electricity in a reasonable manner. As per the provision of Section 65 of the Electricity Act, 2003, State Governments can give subsidy to any class of consumers in the tariff determination by Appropriate Commission to the extent they consider appropriate.
- (c) to (e): The Government of India has taken various initiatives to reduce the price of electricity to end consumers like Ujwal DISCOM Assurance Yojana (UDAY) Scheme to improve operational and financial efficiency of Discoms, competitive procurement of electricity, rationalization of coal linkage, flexibility and scheduling of thermal power station to reduce the cost for consumers etc.

LOK SABHA UNSTARRED QUESTION NO.4282 ANSWERED ON 18.07.2019

STUDY OF HYDRO POWER PROJECTS IN HIMALAYAN REGIONS

4282. SHRIMATI RAKSHANIKHIL KHADSE:

Will the Minister of POWER be pleased to state:

- (a) whether the Government proposes to make a study for construction of hydro power projects especially in Himalayan regions involving geological instability and climate related disasters like flash floods and cloud bursts on account of the occurrence earlier;
- (b) if so, the details thereof;
- (c) whether the Government also proposes to take steps to save the hydropower development which are detrimental and put in place functional regulation and governance institutions in this regard; and
- (d) if so, the details thereof?

ANSWER

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): No such proposal is under consideration of the Ministry of Power. However, detailed geological and geo-technical studies/investigations are carried out by the prospective project developers and a Detailed Project Report (DPR) is prepared which encompasses all relevant spheres of project development including hydrology which covers hisotroical data including flash floods / cloud bursts, safety and geolgocial stability, impact on environment and forests, rehabilitation and resettlement of project affected families etc. to ensure that there is no detrimental effect, before a Hydro Project is taken up for implementation.
- (d): Question does not arise.

LOK SABHA UNSTARRED QUESTION NO.4283 ANSWERED ON 18.07.2019

NEW POWER TARIFF POLICY

4283. SHRI A.K.P. CHINRAJ:

Will the Minister of POWER be pleased to state:

- (a) whether the Government proposes to draft new power tariff policy;
- (b) if so, the details thereof;
- (c) the motive and objectives of the new power tariff policy; and
- (d) the time by which the new policy is likely to come into effect?

ANSWER

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): Draft Amendments to Tariff Policy were circulated for Stakeholder comments on 30.5.2018. In the proposed amendments in Tariff Policy, the key focus is on the ensuring sustainability of power sector, encouraging competition, addressing environmental concerns, performance improvement, efficiency and accountability of the Distribution Sector in addition to other issues. A revised Tariff Policy is in the process of getting approval of the Government.

LOK SABHA UNSTARRED QUESTION NO.4289 ANSWERED ON 18.07.2019

UTILISATION OF PSDF FOR INTER STATE TRANSMISSION NETWORK

4289. SHRIMATI RATHVA GITABEN VAJESINGBHAI:

Will the Minister of POWER be pleased to state:

- (a) the capacity of present transmission lines;
- (b) whether the Union Government proposes to run these transmission lines in its full capacity and if so, the details thereof;
- (c) whether the State Government of Gujarat is unable to supply surplus power to power deficit States due to constraints in inter-regional transmission corridors and if so, the details thereof;
- (d) whether the Union Government has any plan for power deficit States and if so, the details thereof;
- (e) whether the State Government of Gujarat has requested the Union Government to utilize the funds lying in Power System Development Fund (PSDF) for creation of sufficient inter-regional transmission links and if so, the details thereof; and
- (f) whether the Union Government proposes to use PSDF for establishing inter-State transmission network and if so, the details thereof?

ANSWER

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 circuit kilometers (ckm) of transmission lines at the voltage level of 220 kV and above in the country is 4,15,517 ckm as on 30.6.2019.
- (b): The transmission lines are allowed to be run to their full capacity wherever it is permissible in accordance with Regulations/standards of Central Electricity Authority (CEA)/Central Electricity Regulatory Commission (CERC). However, in certain cases, the loading on transmission lines may have to be restricted keeping in view the voltage stability, angular stability, loop flows, load flow pattern and loading of weakest link in the grid.

- (c): Presently, there is no constraint in the Inter-State Transmission System (ISTS) for transfer of long term allocated power from various generating stations in Gujarat to different beneficiary States.
- (d): Augmentation of the ISTS network is a continuous process and is being carried out regularly based on implementation of new generations projects, growing power demand, to address operational constraints etc. A number of transmission lines are under implementation which would facilitate power transfer from resource rich Western Region to power deficit areas, the details are as under:
 - (i) Warora-Warangal 765 kV D/C line
 - (ii) 600 MW, + 800 kV Raigarh Pugalur HVDC bipole line
 - (iii) Upgradation of <u>+</u> 800 kV Champa Kurukshetra HVDC bipole line from 3000 MW to 6000 MW
 - (iv) Vindhyachal-Varanasi 765 kV D/C line
- (e) & (f): Based on the proposals of Gujarat, 9 schemes have been approved for which about Rs.400 crores has been sanctioned.

The funds from PSDF are utilized for the categories of projects as given below:

- Creating necessary transmission systems of strategic importance for relieving congestion in Inter-State Transmission Systems (ISTS) and intra-state system which are incidental to the ISTS.
- Installation of shunt capacitors, series compensators and other reactive energy generators for improvement of voltage profile in the Grid.
- Installation of standard and special protection schemes, pilot and demonstrative projects, projects for setting right the discrepancies identified in the protection audits on regional basis, any communication/measurement/ monitoring scheme including installation of Phasor Measurement Units (PMUs) etc.
- Renovation and Modernization (R&M) of transmission and distribution systems for relieving congestion.
- Any other scheme/project in furtherance of the above objectives, such as, conducting technical studies and capacity building, etc.

LOK SABHA UNSTARRED QUESTION NO.4292 ANSWERED ON 18.07.2019

USE OF FARM STUBBLE IN POWER PLANTS

4292. SHRI CHANDRA SEKHAR SAHU:

Will the Minister of POWER be pleased to state:

- (a) whether the Government has implemented the mixing of farm stubble pellets up to 10% of the total fuel in a power plant and if so, the details thereof;
- (b) whether mixing of farm stubble pellets will affect the efficiency in terms of gross calorific value and if so, the details thereof;
- (c) whether the NTPC has completed test runs and if so, the details thereof;
- (d) whether the NTPC has planned to expand scheme of mixing of farm stubble pellets gradually in its all plants and if so, the details thereof;
- (e) whether the use of farm stubble in power plants will increase the power generation cost; and
- (f) if so, the details thereof?

ANSWER

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): Central Electricity Authority (CEA) has issued an advisory in Nov 2017 to all the coal based power plants to use 5-10% of agro residue based pellets along with coal. CEA has also issued technical specification for pellets/ torrefied pellets. Accordingly, test run was conducted by NTPC for biomass cofiring in its Dadri plant with 100 Metric tonne of biomass pellets after making suitable modification in one unit of 200 MW.

.....2.

- (b): Prolonged biomass co-firing is required to ascertain the effect of mixing of farm stubble pellets on efficiency.
- (c): Test run was conducted in Dadri from September 2017 onwards with 100 Metric tonne of biomass pellets after making suitable modification in one unit of 200 MW. Now, NTPC is moving forward to start commercial scale biomass co-firing for which purchase order for 200 metric tonnes per day of pellets/ torrefied pellets has already been placed and part supply has begun.
- (d): To start biomass co-firing in majority of NTPC power plants including its JV at Jhajjar, NTPC had invited Expression of Interest (EOI) from entrepreneurs for supply of paddy straw and other agro residue based pellets/torrefied pellets. About 109 parties have been enlisted through EOI. Bids will be invited soon from enlisted parties to supply pellets/torrefied pellets to NTPC power plants.
- (e) & (f): Use of farm stubble based pellets/torrefied pellets in power plants will increase the generation cost. The increase in variable charge of electricity shall depend upon difference of price between biomass and coal and thus it shall be different for different plants (price of agro residue based biomass pellets/ torrefied biomass pellets/briquettes will be discovered through tender). In addition to this, there shall be a slight increase in fixed charge due to additional capital expenditure required for biomass material handling infrastructure.