# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA STARRED QUESTION NO.104 ANSWERED ON 27.07.2023

### BENEFITS OF CO-FIRING BIOMASS PELLETS IN TPPS

\*104. SHRI SHYAM SINGH YADAV:

Will the Minister of POWER be pleased to state:

- (a) whether the Government has carried out experiments to ascertain the benefits of co-firing biomass pellets in Thermal Power Plants (TPPs) to reduce reliance on coal and mitigate air pollution due to stubble burning;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) whether there is a detailed strategy, project/ programme for the production of biomass pellets to be used for co-firing in thermal power plants; and
- (d) if so, the details thereof and if not, the reasons therefor?

### ANSWER

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(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) IN RESPECT OF LOK SABHA STARRED QUESTION NO.104 FOR REPLY ON 27.07.2023 REGARDING BENEFITS OF CO-FIRING BIOMASS PELLETS IN TPPs ASKED BY SHRI SHYAM SINGH YADAV

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(a) & (b): Experiments have been carried out by NTPC-NETRA in NTPC Dadri coal based thermal power plant to ascertain the impact of co-firing biomass on the Thermal Power Plants (TPPs). Through the studies, it has been well established that 5% to 10% of biomass can be safely co-fired with coal in TPPs without any adverse impact on the power plant. To that extend this would help in reducing requirement of coal for the TPPs and also mitigate air pollution caused due to stubble burning, to some extent.

So far around 2.1 Lakh Metric Ton (LMT) of agro-residue based biomass has been co-fired in coal based thermal power plants, leading to reduction of more than 2.5 Lakh Metric Tonnes (LMT) carbon dioxide emissions.

- (c) & (d): To address the burning issue of air pollution particularly in National Capital Region (NCR) due to farm stubble burning and to reduce carbon footprints of thermal power generation, the Ministry of Power constituted the National Mission on Use of Biomass in Thermal Power Plants (SAMARTH) on 12th July 2021 and the revised biomass policy was issued on 8<sup>th</sup> October 2021, mandating all TPPs in the country to use 5% of biomass pellets in the co-firing with coal. This policy was further modified vide Ministry's O.M dated 16.06.2023. Besides, Government has also taken the following steps:
- (i) A customized window has been made available on the GeM Portal for Biomass pellet procurement.
- (ii) Biomass has been notified under Priority Sector lending by the RBI. This would enable easier & faster availability of bank loans to the pellet manufacturers. The State Bank of India has launched a dedicated scheme to provide long term loan to pellet manufacturers.

- (iii) Following Financial Subsidy Schemes have been issued by Central Pollution Control Board (CPCB) and Ministry of New & Renewable Energy (MNRE) to encourage the new entrepreneurs:
  - i. MNRE Scheme "Biomass Programme" provides assistance to set up the biomass pellet plants.
  - ii. CPCB guidelines "One-time financial assistance scheme for setting up pellets plant in NCR"

For providing financial assistance for setting up biomass pellet manufacturing plants, schemes envisaged are (a) MNRE Bio Energy Schemes in which Pellet Manufacturing plants will be provided with Rs. 9 Lakh per MTPH (Metric Ton Per Hour) or Rs 45 Lakhs per plant as Central Financial Assistance (b) CPCB financial support under Environment Protection Charge (EPC) funds for both pelletisation plant & torrefaction plant i.e. a maximum amount of Rs. 28 lakhs per ton plant production capacity per hour, or 40% of the capital cost considered for plant and machinery of a 1 TPH plant; whichever is lower, shall be given as one-time financial support by CPCB, subject to a maximum total financial support of Rs. 1.4 crore per proposal.

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1166 ANSWERED ON 27.07.2023

## **ELECTRIFICATION OF VILLAGES**

1166. SHRI MANOJ TIWARI: DR. NISHIKANT DUBEY:

Will the Minister of POWER be pleased to state:

- (a) the total number of villages electrified under the Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), State-wise including districts of Bihar and Jharkhand especially in Santhal Pargana;
- (b) the number of houses/households electrified under the said yojana, Statewise including districts of Bihar and Jharkhand;
- (c) the current status of the implementation of Ujwal Discom Assurance Yojana (UDAY) in the country, State-wise; and
- (d) the details of States and DISCOMs which have failed to perform their duties under the said Yojana and the action taken thereon?

## ANSWER

## THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

- (a): Government of India launched the Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) in December, 2014 for rural electrification works across the country. As reported by the States, all the inhabited un-electrified villages as per census 2011 stand electrified on 28th April, 2018 across the country under DDUGJY. A total of 18,374 villages were electrified under the scheme. State-wise number of inhabited un-electrified census villages electrified across the country including States of Bihar and Jharkhand are at Annexure-I. District-wise details of electrification of inhabited census villages in the States of Bihar and Jharkhand (including Santhal Pargana) is enclosed at Annexure-II(a) & II(b).
- (b): State-wise details of BPL Households covered under DDUGJY (including RE) from 2015 to 2019 are at Annexure-III. District-wise details of BPL households covered under DDUGJY (including RE) from 2015-2019 in the States of Bihar and Jharkhand is enclosed as Annexure-III(A) and Annexure-III(B).

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(c) & (d): Ujwal DISCOM Assurance Yojana (UDAY), a scheme for financial turnaround of Power Distribution Companies (DISCOMs) was launched by the Government on 20-11-2015 with an objective to improve operational and financial efficiency of the State DISCOMs.

A total of 27 States (except Odisha and West Bengal) and 5 UTs (except Delhi and Chandigarh) signed MoU under UDAY. 16 States (namely Jharkhand, Chhattisgarh, Rajasthan, Uttar Pradesh, Bihar, Punjab, Jammu & Kashmir, Haryana, Himachal Pradesh, Andhra Pradesh, Madhya Pradesh, Maharashtra, Assam, Meghalaya, Telangana and Tamil Nadu) signed Comprehensive MoU, which included financial restructuring of debt & taking over of future losses for four years. Other 16 States/UTs (namely Gujarat, Uttarakhand, Goa, Karnataka, Manipur, Sikkim, Arunachal Pradesh, Kerala, Tripura, Mizoram, Nagaland, Andaman & Nicobar Islands, Dadra & Nagar Haveli, Daman & Diu, Puducherry and Lakshadweep) had signed the MoU only for Operational improvements.

UDAY was launched with an overall aim of operational and financial turnaround of State owned Distribution Utilities (DISCOMs) through efficiency improvements and financial restructuring in Generation, Transmission and Distribution Sectors. State Power Distribution Utilities have reported an overall improvement which include (i) Reduction in Aggregate Technical & Commercial (AT&C) losses from 23.70% in FY 16 to 16.42% in FY 22 and (ii) Reduction of Average Cost of Supply (ACS) – Average Revenue Realised (ARR) gap from Re.0.54 per kWh in FY 16 to Re.0.15 per kWh in FY 22. The details of the performance of the States on AT&C loss and ACS-ARR gaps is enclosed as Annexure-IV and Annexure-V respectively.

# ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO.1166 ANSWERED IN THE LOK SABHA ON 27.07.2023

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# State-wise electrification of inhabited census villages under DDUGJY from 2015-16 till 28.04.2018

S. No.	Name of the States	Number of villages electrified
1	Arunachal Pradesh	1,483
2	Assam	2,732
3	Bihar	2,906
4	Chhattisgarh	1,078
5	Himachal Pradesh	28
6	Jammu & Kashmir	129
7	Jharkhand	2,583
8	Karnataka	39
9	Madhya Pradesh	422
10	Maharashtra	80
11	Manipur	366
12	Meghalaya	1,051
13	Mizoram	54
14	Nagaland	78
15	Odisha	3,281
16	Rajasthan	427
17	Tripura	26
18	Uttar Pradesh	1,498
19	Uttarakhand	91
20	West Bengal	22
	Total	18,374

## ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO.1166 ANSWERED IN THE LOK SABHA ON 27.07.2023

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## District wise details of electrification of inhabited census villages from FY 2015-16 till 28.04.2018 during DDUGJY in Bihar

SI. No	District	Nos. of Villages
1	Araria	7
2	Aurangabad	30
3	Banka	85
4	Begusarai	4
5	Bhagalpur	30
6	Bhojpur	68
7	Buxar	82
8	Darbhanga	25
9	Gaya	349
10	Gopalganj	61
11	Jamui	85
12	Jehanabad	11
13	Kaimur (Bhabua)	141
14	Katihar	934
15	Khagaria	109
16	Kishanganj	47
17	Lakhisarai	24
18	Madhepura	9
19	Madhubani	44
20	Munger	31
21	Muzaffarpur	67
22	Nalanda	12
23	Nawada	20
24	Pashchim Champaran	61
25	Patna -	85
26	Purba Champaran	5
27	Purnia	74
28	Rohtas	37
29	Saharsa	106
30	Samastipur	16
31	Saran	128
32	Sheohar	7
33	Sitamarhi	31
34	Siwan	2
35	Supaul	40
36	Vaishali	39
	Total	2906

## ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO.1166 ANSWERED IN THE LOK SABHA ON 27.07.2023

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District wise details of electrification of inhabited census villages from FY 2015-16 till 28.04.2018 during DDUGJY in Jharkhand

SI. No.	District	Nos. of Villages
1	Bokaro	68
2	Chatra	328
3	Deoghar*	49
4	Dhanbad	74
5	Dumka*	4
6	Garhwa	156
7	Giridih	182
8	Godda*	1
9	Gumla	60
10	Hazaribagh	43
11	Jamtara*	3
12	Khunti	125
13	Koderma	40
14	Latehar	198
15	Lohardaga	85
16	Pakur*	46
17	Palamu	400
18	Pashchimi Singhbhum	439
19	Purbi Singhbhum	23
20	Ramgarh	10
21	Ranchi	93
22	Sahibganj*	43
23	Sarikela-Kharswana	68
24	Simdega	45
	Total	2583

Note: \* Santhal Pargana having headquarters at Dumka, comprises of 6 Districts viz., Godda, Deoghar, Dumka, Jamtara, Sahibganj and Pakur.

## ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO.1166 ANSWERED IN THE LOK SABHA ON 27.07.2023

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## State-wise details of BPL Households covered under DDUGJY (including RE) from 2015 to 2019

S. No.	State	Total Number of households covered
1	Andhra Pradesh	729553
2	Arunachal Pradesh	8291
3	Assam	782370
4	Bihar	3385597
5	Chhattisgarh	163551
6	Gujarat	5060
7	Haryana	5419
8	Himachal Pradesh	43
9	Jammu & Kashmir	53666
10	Jharkhand	675174
11	Karnataka	369626
12	Kerala	136193
13	Madhya Pradesh	1047133
14	Maharashtra	386498
15	Manipur	48799
16	Meghalaya	2639
17	Mizoram	1915
18	Nagaland	60701
19	Odisha	1629495
20	Punjab	
21	Rajasthan	410604
22	Sikkim	5271
23	Tamil Nadu	23496
24	Telangana	539306
25	Tripura	82019
26	Uttar Pradesh	2127011
27	Uttarakhand	7251
28	West Bengal	81939
	Total	12768620

## ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO.1166 ANSWERED IN THE LOK SABHA ON 27.07.2023

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## District wise details of BPL households covered under DDUGJY (incl RE) from 2015-2019 in Bihar state

2019 in Bihar state	
SI. District name	Number of households
No.	electrified
	(in Lakhs)
1 Araria	1.26
2 Arwal	0.24
3 Aurangabad	0.65
4 Banka	0.62
5 Begusarai	0.71
6 Bhagalpur	0.42
7 Bhojpur	1.01
8 Buxar	0.50
9 Darbhanga	0.92
10 Gaya (south)	1.22
11 Gopalganj	1.11
12 Jamui	0.95
13 Jehanabad	0.16
14 Kaimur (Bhabua)	0.38
15 Katihar	1.58
16 Khagaria	0.90
17 Kishanganj	1.29
18 Lakhisarai	0.17
19 Madhepura	0.92
20 Madhubani	1.56
21 Munger	0.58
22 Muzzafarpur & Vaishali Comp Under MNP	0.87
23 Nalanda	1.22
24 Nawada	0.88
25 PashchimChamparan	1.67
26 Patna	0.57
27 PurbiChamparan	1.86
28 Purnia	1.58
29 Rohtas	0.44
30 Saharsa	0.80
31 Samastipur	1.99
32 Saran	0.71
33 Sheikhpura	0.11
34 Sheohar	0.21
35 Sitamarhi	0.66
36 Siwan	1.08
37 Supaul	1.30
38 Vaishali	0.73
District Total	33.86

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## **ANNEXURE-III(B)**

## ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO.1166 ANSWERED IN THE LOK SABHA ON 27.07.2023

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## District wise details of BPL households covered under DDUGJY (incl RE) from 2015-2019 in Jharkhand state

	KE) 110111 2013-2019 11	Number of households
SI.		electrified
No	District name	(in Lakhs)
1	Bokaro	0.21
2	Chatra	0.43
3	Deoghar	0.22
4	Dhanbad	0.22
5	Dumka	0.03
6	Garhwa	0.82
7	Giridih	0.69
8	Godda	0.14
9	Gumla	0.17
10	Hazaribagh	0.14
11	Jamtara	0.11
12	Khunti	0.09
13	Kodarma	0.21
14	Latehar	0.39
15	Lohardaga	0.05
16	Pakur	0.27
17	Palamu	0.52
18	PashchimiSinghbhum	0.24
19	PurbiSinghbhum	0.20
20	Ramgarh	0.20
21	Ranchi	0.35
22	Sahibganj	0.51
23	Saraikela-Kharsawan	0.33
24	Simdega	0.10
25	BPL scheme	0.00
26	DDG	0.11
	District Total	6.75

## **ANNEXURE-IV**

## ANNEXURE REFERRED IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO.1166 ANSWERED IN THE LOK SABHA ON 27.07.2023

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## AT&C Losses (%)

	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
State Sector	23.65	23.77	21.90	22.12	21.29	22.78	16.51
Andaman & Nicobar Islands			30.28	23.43	23.34	51.94	
Andaman & Nicobar PD			30.28	23.43	23.34	51.94	
Andhra Pradesh	10.36	13.77	14.15	25.67	11.19	28.36	10.55
APCPDCL						22.73	10.03
APEPDCL	7.10	7.48	10.88	18.30	6.64	20.85	7.77
APSPDCL	12.03	17.02	16.04	29.76	13.84	38.72	13.58
Arunachal Pradesh	54.58	53.64	51.08	52.53	40.09	52.21	48.89
Arunachal PD	54.58	53.64	51.08	52.53	40.09	52.21	48.89
Assam	26.02	20.11	17.64	20.19	23.39	18.73	16.95
APDCL	26.02	20.11	17.64	20.19	23.39	18.73	16.95
Bihar	43.30	43.34	33.51	33.30	39.95	33.27	32.42
NBPDCL	35.73	37.85	30.46	26.97	28.94	27.78	28.90
SBPDCL	47.87	46.81	35.53	37.81	48.29	37.58	35.27
Chandigarh			9.56	13.50	15.95	13.81	13.31
Chandigarh PD			9.56	13.50	15.95	13.81	13.31
Chhattisgarh	22.10	23.87	20.74	24.96	19.03	19.65	18.13
CSPDCL	22.10	23.87	20.74	24.96	19.03	19.65	18.13
Dadra & Nagar Haveli and Daman &							
Diu			9.46	5.67	3.70	4.97	3.77
Daman & Diu PD			17.11	6.19	4.07	4.48	4.45
DNHPDCL			6.55	5.45	3.56	5.17	3.50
Goa	19.77	24.33	10.48	17.61	15.03	13.09	13.28
Goa PD	19.77	24.33	10.48	17.61	15.03	13.09	13.28

Gujarat	16.23	14.42	12.96	14.05	11.93	11.56	10.13
DGVCL	10.48	10.20	6.60	5.90	6.22	7.40	4.75
MGVCL	11.81	11.24	11.73	10.38	11.28	9.96	8.73
PGVCL	24.71	21.71	19.64	21.21	19.17	17.86	16.70
UGVCL	11.53	9.17	9.32	12.01	6.88	6.76	6.71
Haryana	29.27	26.42	21.78	18.08	18.26	17.05	13.72
DHBVNL	26.44	23.10	19.16	15.34	16.37	16.93	13.55
UHBVNL	32.84	30.68	25.38	22.04	20.83	17.21	13.96
Himachal Pradesh	9.68	11.48	11.08	12.46	13.90	14.02	12.90
HPSEBL	9.68	11.48	11.08	12.46	13.90	14.02	12.90
Jammu & Kashmir	58.75	59.96	53.67	49.94	60.46	59.28	
JKPDD	58.75	59.96	53.67	49.94	60.46	59.28	
Jharkhand	33.34	40.83	44.72	28.33	37.13	43.09	33.79
JBVNL	33.34	40.83	44.72	28.33	37.13	43.09	33.79
Karnataka	17.13	16.84	15.61	18.21	16.80	16.26	11.45
BESCOM	13.88	14.91	13.17	12.27	16.45	15.93	11.23
CHESCOM	13.60	19.31	13.20	20.18	21.65	20.27	11.32
GESCOM	18.00	17.86	16.39	27.55	17.24	20.02	10.54
HESCOM	27.63	18.35	22.84	24.89	15.31	14.16	13.50
MESCOM	12.71	19.47	14.23	18.12	15.33	12.28	9.02
Kerala	12.40	13.42	12.81	9.10	13.12	7.80	7.69
KSEBL	12.40	13.42	12.81	9.10	13.12	7.80	7.69
Ladakh							48.29
Ladakh PD							48.29
Lakshadweep			19.15	26.82	13.69	11.63	
Lakshadweep ED			19.15	26.82	13.69	11.63	
Madhya Pradesh	27.37	26.80	30.51	36.63	30.38	41.47	22.55
MPMaKVVCL	31.09	34.29	39.00	45.02	37.17	49.04	26.40
MPPaKVVCL	25.06	19.08	18.69	25.28	20.94	30.28	11.61
MPPoKVVCL	26.10	28.00	34.84	40.38	33.89	45.39	30.98

Maharashtra	21.74	22.84	14.07	15.79	19.30	26.59	15.25
BEST			6.36	4.18	6.34	8.18	8.41
MSEDCL	21.74	22.84	14.38	16.23	19.80	27.17	15.46
Manipur	31.72	33.01	27.46	25.26	23.30	20.32	23.62
MSPDCL	31.72	33.01	27.46	25.26	23.30	20.32	23.62
Meghalaya	45.98	38.81	41.19	35.22	31.67	28.79	27.30
MePDCL	45.98	38.81	41.19	35.22	31.67	28.79	27.30
Mizoram	35.18	24.98	16.16	24.56	37.05	29.05	36.23
Mizoram PD	35.18	24.98	16.16	24.56	37.05	29.05	36.23
Nagaland	33.44	38.50	41.36	65.73	51.87	45.15	41.28
Nagaland PD	33.44	38.50	41.36	65.73	51.87	45.15	41.28
Puducherry	22.43	21.34	19.19	19.77	18.45	20.06	11.08
Puducherry PD	22.43	21.34	19.19	19.77	18.45	20.06	11.08
Punjab	15.88	14.46	17.31	11.28	15.11	18.54	11.67
PSPCL	15.88	14.46	17.31	11.28	15.11	18.54	11.67
Rajasthan	31.59	27.33	24.07	28.25	29.86	26.18	17.49
AVVNL	27.66	25.19	23.14	23.37	22.08	21.44	12.73
JdVVNL	29.67	26.17	23.49	35.20	38.26	31.00	21.88
JVVNL	35.87	29.79	25.19	25.73	27.83	25.08	16.81
Sikkim	43.89	35.62	32.48	41.83	28.77	25.92	30.77
Sikkim PD	43.89	35.62	32.48	41.83	28.77	25.92	30.77
Tamil Nadu	16.83	18.23	19.47	17.86	13.60	11.93	13.46
TANGEDCO	16.83	18.23	19.47	17.86	13.60	11.93	13.46
Telangana	14.01	15.19	19.40	18.41	21.92	13.33	10.65
TSNPDCL	17.41	16.19	24.74	28.63	35.26	9.03	14.11
TSSPDCL	12.64	14.77	17.16	13.79	15.57	15.48	9.14
Tripura	32.68	28.95	30.04	38.03	35.71	37.36	33.25
TSECL	32.68	28.95	30.04	38.03	35.71	37.36	33.25
Uttar Pradesh	39.76	40.91	37.80	33.19	30.05	27.43	30.52
DVVNL	43.13	40.62	38.89	37.12	39.75	32.09	28.62

KESCO	28.16	25.10	22.52	16.49	15.49	12.45	15.54
MVVNL	44.58	47.27	45.29	40.62	34.14	32.20	34.88
PaVVNL	27.12	29.73	25.97	22.27	18.64	17.85	22.29
PuVVNL	51.14	53.19	47.89	39.64	34.24	32.45	40.33
Uttarakhand	18.01	16.68	16.34	17.45	20.35	15.39	14.15
UPCL	18.01	16.68	16.34	17.45	20.35	15.39	14.15
West Bengal	28.08	27.83	26.69	23.00	20.40	21.34	16.67
WBSEDCL	28.08	27.83	26.69	23.00	20.40	21.34	16.67
Private Sector	24.58	22.75	18.62	15.67	14.20	14.97	15.23
Delhi	12.44	10.79	9.87	9.12	8.23	8.94	8.12
BRPL	12.60	11.13	10.53	9.04	8.33	9.64	8.95
BYPL	16.76	12.99	10.83	10.76	8.54	9.41	7.99
TPDDL	8.83	8.62	8.20	7.99	7.86	7.67	7.11
Maharashtra				6.81	6.06	5.85	5.07
AEML				8.11	9.06	8.89	6.75
TPML				4.28	0.07	0.18	2.07
Odisha	38.60	37.19	33.59	31.55	28.94	27.41	31.26
TPNODL							27.13
TPSODL						20.47	34.26
TPWODL						22.43	30.20
TPCODL						25.94	33.54
NESCO Utility	36.32	28.13	24.41	24.61	24.45	25.59	
SOUTHCO Utility	44.57	43.49	40.66	41.33	36.05	35.37	
WESCO Utility	40.07	41.70	34.90	30.88	28.81	30.27	
CESU	36.51	36.73	35.49	32.49	29.03		
Uttar Pradesh			9.08	9.36	9.73	9.77	8.50
NPCL			9.08	9.36	9.73	9.77	8.50
West Bengal			10.74	9.23	9.25	13.17	7.75
CESC			11.25	9.73	9.52	14.04	8.10
IPCL			3.20	2.68	5.87	3.52	4.02
Grand Total	23.70	23.72	21.69	21.65	20.78	22.25	16.42
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## ANNEXURE REFERRED IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO.1166 ANSWERED IN THE LOK SABHA ON 27.07.2023

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## **ACS-ARR Gap**

### 2015-16

Rs./kWh

		2015-16	
	ACS	ARR on Tariff Subsidy received (excluding Regulatory Income and Revenue Grant under UDAY for Loan takeover)	Gap on Tariff Subsidy received (excluding Regulatory Income and Revenue Grant under UDAY for Loan takeover)
State Sector	5.31	4.74	0.57
Andaman & Nicobar Islands	5.31	4.74	0.57
Andaman & Nicobar PD			
Andhra Pradesh	5.60	4.80	0.80
APCPDCL	5.00	4.80	0.80
APEPDCL	5.76	5.44	0.32
APSPDCL	5.52	4.49	1.03
Arunachal Pradesh	5.20	4.71	0.49
Arunachal PD	5.20	4.71	0.49
Assam	5.09	4.86	0.23
APDCL	5.09	4.86	0.23
Bihar	5.06	4.60	0.46
NBPDCL	5.01	4.66	0.46
SBPDCL	5.10	4.56	0.54
	5.10	4.30	0.54
Chandigarh BD			
Chandigarh PD	3.90	3.90	(0.01)
Chhattisgarh CSPDCL	3.90	3.90	, ,
	3.90	3.90	(0.01)
Dadra & Nagar Haveli and Daman & Diu			
Daman & Diu PD			
DNHPDCL			
		2.22	0.74
Goa	3.80	3.09	0.71
Goa PD	3.80	3.09	0.71
Gujarat	4.62	4.64	(0.02)
DGVCL	5.71	5.75	(0.04)
MGVCL	4.95	4.94	0.01
PGVCL	4.06	4.08	(0.01)
UGVCL	4.23	4.27	(0.04)
Haryana	5.58	5.42	0.16
DHBVNL	5.49	5.32	0.17
UHBVNL	5.70	5.55	0.15
Himachal Pradesh	4.91	5.22	(0.31)
HPSEBL	4.91	5.22	(0.31)
Jammu & Kashmir	4.41	1.41	3.00
JKPDD	4.41	1.41	3.00
Jharkhand	4.92	3.99	0.93
JBVNL	4.92	3.99	0.93
Karnataka	5.09	4.76	0.33
BESCOM	5.05	4.88	0.17
CHESCOM	5.33	5.42	(0.10)
GESCOM	5.14	4.79	0.35
HESCOM	4.82	3.94	0.88
MESCOM	5.55	5.16	0.39
Kerala	5.14	4.84	0.30
KSEBL	5.14	4.84	0.30
Ladakh			
Ladakh PD			
Lakshadweep			
Lakshadweep ED			
Madhya Pradesh	4.88	4.01	0.87
MPMaKVVCL	4.97	3.77	1.20
MPPaKVVCL	4.78	4.28	0.50

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MPPoKVVCL	4.89	3.94	0.95
Maharashtra	5.16	4.72	0.43
MSEDCL	5.16	4.72	0.43
BEST			
Manipur	4.98	4.96	0.02
MSPDCL	4.98	4.96	0.02
State Sector	5.31	4.74	0.57
Meghalaya	4.11	3.29	0.82
MePDCL	4.11	3.29	0.82
Mizoram	4.86	2.79	2.06
Mizoram PD	4.86	2.79	2.06
Nagaland	5.49	5.30	0.20
Nagaland PD	5.49	5.30	0.20
Puducherry	3.80	3.82	(0.02)
Puducherry PD	3.80	3.82	(0.02)
Punjab	5.31	4.78	0.53
PSPCL	5.31	4.78	0.53
Rajasthan	6.27	4.44	1.83
AVVNL	6.77	4.81	1.96
JdVVNL	6.09	4.28	1.80
JVVNL	6.08	4.32	1.77
Sikkim	4.86	2.77	2.09
Sikkim PD	4.86	2.77	2.09
Tamil Nadu	6.46	5.78	0.67
TANGEDCO	6.46	5.78	0.67
Telangana	5.60	4.86	0.74
TSNPDCL	5.86	4.99	0.88
TSSPDCL	5.49	4.81	0.68
Tripura	3.84	3.42	0.42
TSECL	3.84	3.42	0.42
Uttar Pradesh	5.65	5.37	0.29
DVVNL	6.05	5.32	0.73
KESCO	5.96	6.03	(0.07)
MVVNL	5.89	5.70	0.19
PaVVNL	5.26	5.05	0.21
PuVVNL	5.52	5.44	0.08
Uttarakhand	3.88	3.78	0.10
UPCL	3.88	3.78	0.10
West Bengal	4.85	4.34	0.52
WBSEDCL	4.85	4.34	0.52
Private Sector	5.27	5.32	(0.05)
Delhi	6.12	6.48	(0.37)
BRPL	6.52	6.89	(0.37)
BYPL	6.52	6.29	0.23
TPDDL	5.33	6.13	(0.81)
Maharashtra			. ,
AEML			
TPML			
Odisha	4.11	3.72	0.39
TPNODL	4.11	3.72	0.39
TPSODL			
TPWODL			
TPCODL			
NESCO Utility	4.46	4.12	0.34
SOUTHCO Utility	3.44	3.13	0.31
WESCO Utility	4.02	3.80	0.22
CESU	4.22	3.62	0.61
Uttar Pradesh			
NPCL			
West Bengal			
CESC			
IPCL			
Grand Total	5.31	4.77	0.54
	J.J I	4.77	0.54

	2016-17	Rs./Kwh	
		ARR on Tariff Subsidy	Gap on Tariff Subsidy
		received(excluding	received(excluding
		Regulatory Income and	Regulatory Income and
	ACS	Revenue Grant under UDAY	Revenue Grant under UDAY
		for Loan takeover)	for Loan takeover
State Sector	5.38	4.76	0.61
Andaman & Nicobar Islands	0.00		0.01
Andaman& Nicobar PD			
Andhra Pradesh	5.30	4.78	0.52
APCPDCL			
APEPDCL	5.26	5.05	0.21
APSPDCL	5.32	4.65	0.67
Arunachal Pradesh Arunachal PD	6.43 6.43	2.78 2.78	3.65 3.65
Assam	5.15	5.08	0.06
APDCL	5.15	5.08	0.06
Bihar	5.10	4.60	0.51
NBPDCL	4.75	4.47	0.28
SBPDCL	5.35	4.69	0.67
Chandigarh			
Chandigarh PD			
Chhattisgarh	4.84	4.63	0.21
CSPDCL Dadra &Nagar Haveli and Daman &	4.84	4.63	0.21
Dadra &Nagar Haveii and Daman &  Diu			
Daman & Diu PD			
DNHPDCL			
Goa	4.30	3.61	0.70
Goa PD	4.30	3.61	0.70
Gujarat	4.70	4.75	(0.05)
DGVCL	5.94	6.00	(0.06)
MGVCL PGVCL	4.90 4.21	5.00 4.25	(0.10) (0.04)
UGVCL	4.21	4.25	(0.04)
Haryana	5.60	5.56	0.04
DHBVNL	5.40	5.41	(0.00)
UHBVNL	5.86	5.77	0.09
Himachal Pradesh	5.13	4.94	0.18
HPSEBL	5.13	4.94	0.18
Jammu & Kashmir	4.13	1.48	2.65
JKPDD	4.13	1.48	2.65
Jharkhand JBVNL	5.03 5.03	3.63 3.63	1.39 1.39
Karnataka	5.41	4.88	0.53
BESCOM	5.16	5.04	0.12
CHESCOM	5.52	1	0.96
GESCOM	5.58	4.88	0.70
HESCOM	5.62	4.71	0.91
MESCOM	5.98	4.81	1.17
Kerala	5.45	4.83	0.62
KSEBL	5.45	4.83	0.62
Ladakh Ladakh PD			
Ladakh PD Lakshadweep			
Lakshadweep ED			
Madhya Pradesh	5.33	4.53	0.81
MPMaKVVCL	5.30		1.20
MPPaKVVCL	5.19	5.01	0.18
MPPoKVVCL	5.54	4.40	1.14
Maharashtra	5.29	4.69	0.59
MSEDCL	5.29	4.69	0.59
BEST	4.0=	4.00	0.00
Manipur MSPDCL	4.65 4.65	4.60 4.60	0.06 0.06
State Sector	5.38	4.60	0.06
Meghalaya	5.19		1.66
		1	
MePDCL	5.19	3.531	7.nn
MePDCL Mizoram	5.19 4.98	3.53 2.87	1.66 2.12

Nagaland	5.71	4.90	0.81
Nagaland PD	5.71	4.90	0.81
Puducherry	4.00	3.97	0.03
Puducherry PD	4.00	3.97	0.03
Punjab	5.34	4.68	0.65
PSPCL	5.34	4.68	0.65
Rajasthan	6.83	5.04	1.79
AVVNL	7.36	5.39	1.97
JdVVNL	6.61	4.63	1.97
JVVNL	6.66	5.15	1.52
Sikkim	3.94	2.74	1.20
SikkimPD	3.94	2.74	1.20
Tamil Nadu	5.70	5.21	0.50
TANGEDCO	5.70	5.21	0.50
Telangana	6.05	4.82	1.23
TSNPDCL	5.77	4.82	0.95
TSSPDCL	6.17	4.82	1.35
Tripura	4.08	3.99	0.10
TSECL	4.08	3.99	0.10
Uttar Pradesh	5.21	4.88	0.33
DVVNL	5.30	4.59	0.71
KESCO	5.57	6.44	(0.86)
MVVNL	5.32	4.94	0.38
PaVVNL	4.94	4.79	0.15
PuVVNL	5.34	4.98	0.37
Uttarakhand	4.23	3.98	0.24
UPCL	4.23	3.98	0.24
West Bengal	5.09	4.73	0.36
WBSEDCL	5.09	4.73	0.36
Private Sector	5.47	5.36	0.12
Delhi	6.38	6.46	(80.0)
BRPL	7.00	6.90	0.10
BYPL	6.39	6.25	0.14
TPDDL	5.66	6.10	(0.45)
Maharashtra			
AEML			
TPML			
Odisha	4.24	3.86	0.38
TPNODL			
TPSODL			
TPWODL			
TPCODL			
NESCO Utility	4.28	4.19	0.09
SOUTHCO Utility	3.86	3.17	0.70
WESCO Utility	4.37	4.07	0.30
CESU	4.26	3.74	0.52
Uttar Pradesh			
NPCL			
West Bengal			
CESC			
IPCL			
Grand Total	5.38	4.80	0.59

			Rs./kWh
	2017-18		
		ARR on Tariff Subsidy	Gap on Tariff Subsidy
		received(excluding	received(excluding
		Regulatory Income and	Regulatory Income and
	ACS	Revenue Grant under	Revenue Grant under
	A 400	UDAY for Loan takeover)	UDAY for Loan takeover)
State Sector	5.49	4.95	0.54
Andaman & Nicobar Islands	24.04	4.64	19.40
Andaman & Nicobar PD	24.04	4.64	19.40
Andhra Pradesh	5.28	5.19	0.09
APCPDCL			
APEPDCL	5.23	5.10	0.13
APSPDCL	5.31	5.23	0.07
Arunachal Pradesh	5.07	1.41	3.66
Arunachal PD	5.07	1.41	3.66
ASSAM APDCL	6.12	6.45	(0.32)
Bihar	6.12 5.28	6.45 4.59	(0.32) 0.68
NBPDCL	5.04	4.73	0.31
SBPDCL	5.46	4.49	0.97
Chandigarh	4.43	5.55	(1.12)
Chandigarh PD	4.43	5.55	(1.12)
Chhattisgarh	4.70	4.54	0.16
CSPDCL	4.70	4.54	0.16
Dadra & Nagar Haveli and Daman&	3.89	3.96	(0.07)
Daman & Diu PD	3.81	4.08	(0.26)
DNHPDCL	3.92	3.91	0.26)
Goa	4.01	4.24	(0.23)
Goa PD	4.01	4.24	(0.23)
Gujarat	4.71	4.76	(0.06)
DGVCL	5.95	6.00	(0.06)
MGVCL	4.94	5.03	(0.09)
PGVCL	4.23	4.28	(0.05)
UGVCL	4.25	4.29	(0.05)
Haryana	5.56	5.64	(0.08)
DHBVNL	5.28	5.32	(0.04)
UHBVNL Himachal Pradesh	5.94 5.09	6.07 5.06	(0.12) 0.03
HPSEBL	5.09	5.06	0.03
Jammu & Kashmir	4.05	2.20	1.85
JKPDD	4.05	2.20	1.85
Jharkhand	5.37	5.21	0.16
JBVNL	5.37	5.21	0.16
Karnataka	5.83	5.46	0.36
BESCOM	5.68	5.76	(80.0)
CHESCOM	5.79	5.14	0.65
GESCOM	5.86	5.35	0.51
HESCOM	6.23	5.03	1.20
MESCOM Kerala	5.74 5.45	5.34 5.14	0.40 0.32
KSEBL	5.45	5.14	0.32
Ladakh	5.73	5.17	VIJE
Ladakh PD			<u> </u>
Lakshadweep	23.45	4.34	19.11
Lakshadweep ED	23.45	4.34	19.11
Madhya Pradesh	5.59	4.72	0.88
MPMaKVVCL	5.60	4.30	1.30
MPPaKVVCL	5.54	5.33	0.21
MPPoKVVCL	5.65	4.47	1.19
Maharashtra	5.44	5.20	0.25
MSEDCL BEST	5.40 6.45	5.10 7.74	0.31 (1.29)
Manipur	5.35	7.74 5.27	0.08
MSPDCL	5.35	5.27	0.08
State Sector	5.49	4.95	0.54
Meghalaya	4.71	3.55	1.16
MePDCL	4.71	3.55	1.16
Mizoram	7.19	5.06	2.13
MizoramPD	7.19	5.06	2.13
Nagaland	6.02	5.21	0.81

Nagaland PD	6.02	5.21	0.81
Puducherry	4.37	4.38	(0.02)
Puducherry PD	4.37	4.38	(0.02)
Punjab	5.54	5.06	0.48
PSPCL	5.54	5.06	0.48
Rajasthan	6.87	5.38	1.49
AVVNL	7.20	5.69	1.51
JdVVNL	6.77	5.00	1.77
JVVNL	6.73	5.48	1.25
Sikkim	3.52	3.26	0.25
Sikkim PD	3.52	3.26	0.25
Tamil Nadu	6.33	4.92	1.41
TANGEDCO	6.33	4.92	1.41
Telangana	5.68	4.56	1.11
TSNPDCL	5.65	4.43	1.22
TSSPDCL	5.68	4.62	1.06
Tripura	4.20	4.28	(0.08)
TSECL	4.20	4.28	(0.08)
Uttar Pradesh	5.21	4.76	0.46
DVVNL	5.39	4.49	0.90
KESCO	6.88	7.05	(0.17)
MVVNL	5.31	5.10	0.21
PaVVNL	5.10	4.66	0.44
PuVVNL	4.89	4.53	0.36
Uttarakhand	4.47	4.29	0.18
UPCL	4.47	4.29	0.18
West Bengal	5.17	4.96	0.22
WBSEDCL	5.17	4.96	0.22
Private Sector	5.68	5.78	(0.10)
Delhi	6.52	6.61	(0.08)
BRPL	6.80	6.81	(0.01)
BYPL	7.07	6.64	0.43
TPDDL	5.80	6.33	(0.53)
Maharashtra			
AEML			
TPML			
Odisha	4.31	3.99	0.32
TPNODL			
TPSODL			
TPWODL			
TPCODL			
NESCO Utility	4.30	4.15	0.15
SOUTHCO Utility	3.78	3.24	0.54
WESCO Utility	4.48	4.45	0.03
CESU	4.39	3.79	0.59
Uttar Pradesh	5.39	7.16	(1.77)
NPCL	5.39	7.16	(1.77)
West Bengal	6.18	6.92	(0.74)
CESC	6.14	6.92	(0.77)
IPCL	6.67	6.93	(0.26)
Grand Total	5.50	5.00	0.50

	0040.40		Rs./kWh
	2018-19		
		ARR on Tariff Subsidy	Gap on Tariff Subsidy
		received (excluding Regulatory	received(excluding
		Income and Revenue Grant	Regulatory Income and
	ACS	under UDAY for	Revenue Grant under
		Loan takeover)	UDAY for
			Loan takeover)
State Sector	5.99	5.27	0.72
Andaman & Nicobar Islands	23.87	4.68	19.19
Andaman& Nicobar PD	23.87	4.68	19.19
Andhra Pradesh	7.50	4.88	2.63
APCPDCL APEPDCL	7.44	5.44	2.22
APSPDCL	7.44 7.54	5.11 4.75	2.33 2.79
Arunachal Pradesh	7.47	3.01	4.47
Arunachal PD	7.47	3.01	4.47
Assam	6.53	6.85	(0.32)
APDCL	6.53	6.85	(0.32)
Bihar	5.94	5.33	0.61
NBPDCL	6.07	5.60	0.47
SBPDCL	5.84	5.11	0.73
Chandigarh	4.26	4.90	(0.64)
Chandigarh PD	4.26	4.90	(0.64)
Chhattisgarh	4.79	4.55	0.24
CSPDCL	4.79	4.55	0.24
Dadra & Nagar Haveli and Daman	4.48	4.32	0.16
& Diu Daman & DiuPD	4.22	9.04	0.04
		3.61	0.61
DNHPDCL	4.59	4.61	(0.02)
Goa Goa PD	4.42	4.15 4.15	0.27 0.27
Gujarat	4.42	4.15	(0.02)
DGVCL	6.06	6.08	(0.02)
MGVCL	5.23	5.28	(0.02)
PGVCL	4.51	4.53	(0.02)
UGVCL	4.49	4.51	(0.02)
Haryana	5.71	5.76	(0.05)
DHBVNL	5.41	5.43	(0.03)
UHBVNL	6.15	6.23	(0.08)
Himachal Pradesh	5.14	5.23	(0.09)
HPSEBL	5.14	5.23	(0.09)
Jammu & Kashmir	4.19	2.47	1.72
JKPDD	4.19	2.47	1.72
Jharkhand	5.26	4.70	0.57
JBVNL	5.26	4.70	0.57
Karnataka	6.11	5.42	0.69
BESCOM	6.64	5.94	0.70
CHESCOM	5.53	5.27	0.25
GESCOM	5.57	5.03	0.54
HESCOM	5.94	4.61	1.33
MESCOM	5.17	5.29	(0.11)
Kerala KSEBL	5.36 5.36	5.31	0.05
	5.36	5.31	0.05
Ladakh Ladakh PD			
Ladakn PD Lakshadweep	25.61	4.24	21.37
Lakshadweep ED	25.61	4.24	21.37
Madhya Pradesh	5.81	4.48	1.33
MPMaKVVCL	5.98	4.11	1.87
MPPaKVVCL	5.64	5.06	0.58
MPPoKVVCL	5.82	4.22	1.60
Maharashtra	6.16	6.35	(0.20)
MSEDCL	6.15	6.31	(0.16)
BEST	6.34	7.63	(1.30)
Manipur	6.38	6.32	0.06
MSPDCL	6.38	6.32	0.06
State Sector	5.99	5.27	0.72
			0.85
Meghalaya	4.96	4.11	0.00
Meghalaya MePDCL	4.96 4.96	4.11 4.11	0.85

Nagaland	8.02	6.72	1.30
Nagaland PD	8.02	6.72	1.30
Puducherry	4.75	4.62	0.13
Puducherry PD	4.75	4.62	0.13
Punjab	5.94	6.01	(0.07)
PSPCL	5.94	6.01	(0.07)
Rajasthan	6.56	5.06	1.50
AVVNL	7.10	5.57	1.53
JdVVNL	6.26	4.48	1.78
JVVNL	6.46	5.21	1.24
Sikkim	3.41	3,39	0.02
Sikkim PD	3.41	3.39	0.02
Tamil Nadu	6.69	4.89	1.80
TANGEDCO	6.69	4.89	1.80
Telangana	6.36	4.98	1.38
TSNPDCL	6.44	4.64	1.80
TSSPDCL	6.32	5.13	1.19
Tripura	4.29	4.43	(0.14)
TSECL	4.29	4.43	(0.14)
Uttar Pradesh	6.39	5.84	0.54
DVVNL	6.46	5.47	0.99
KESCO	8.55	7.25	1.29
MVVNL	6.87	6.50	0.38
PaVVNL	5.99	5.60	0.39
PuVVNL	6.14	5.76	0.37
Uttarakhand	4.90	4.34	0.56
UPCL	4.90	4.34	0.56
West Bengal	5.50	5.22	0.28
WBSEDCL	5.50	5.22	0.28
Private Sector	6.05	6.20	(0.15)
Delhi	6.57	6.79	(0.22)
BRPL	6.92	7.17	(0.25)
BYPL	6.55	6.71	(0.16)
TPDDL	6.17	6.40	(0.23)
Maharashtra	6.75	7.63	(0.88)
AEML	7.06	7.69	(0.63)
TPML	6.16	7.52	(1.36)
Odisha	4.75	4.15	0.60
TPNODL	4.75	4.15	0.60
TPSODL			
TPWODL			
TPCODL			
NESCO Utility	4.42	4.42	0.00
SOUTHCO Utility	4.43	4.42 3.36	0.00
	3.94		0.58
WESCO Utility	5.72	4.54	1.18
CESU Dradesh	4.45	3.96	0.49
Uttar Pradesh	6.28	7.18	(0.90)
NPCL	6.28	7.18	(0.90)
West Bengal	6.41	6.92	(0.52)
CESC	6.39	6.94	(0.55)
IPCL	6.63	6.73	(0.10)
Grand Total	6.00	5.34	0.66

	2019-20 Rs./kW		
		ARR on Tariff Subsidy	Gap on Tariff Subsidy
		received (excluding	
		Regulatory Income and	Income and Revenue Grant
	ACS	Revenue Grant under UDAY	under UDAY for
		for loan takeover)	Loan takeover)
State Sector	6.11	5.56	0.56
Andaman & Nicobar Islands	24.17	4.94	19.24
Andaman& Nicobar PD	24.17	4.94	19.24
Andhra Pradesh APCPDCL	5.94	6.10	(0.16)
APEPDCL	5.61	5.72	(0.11)
APSPDCL	6.10	6.29	(0.18)
Arunachal Pradesh	7.67	7.67	0.00
Arunachal PD	7.67	7.67	0.00
Assam APDCL	5.46 5.46	6.50 6.50	(1.04 <u>)</u> (1.04)
Bihar	6.26	5.35	0.91
NBPDCL	6.65	6.08	0.57
SBPDCL	5.95	4.76	1.19
Chandigarh	4.16	4.44	(0.27)
Chandigarh PD	4.16 4.78	4.44 4.62	(0.27) 0.16
Chhattisgarh CSPDCL	4.78	4.62	0.16
Dadra &Nagar Haveli and Daman &Diu	4.97	4.84	0.13
Daman & Diu PD	4.74	4.23	0.52
DNHPDCL	5.06	5.09	(0.03)
GoaPD	4.64	4.04 4.04	0.61 0.61
Gujarat	5.42	5.48	(0.05)
DGVCL	6.61	6.68	(0.06)
MGVCL	5.61	5.71	(0.10)
PGVCL	4.96	5.00	(0.04)
UGVCL	5.00	5.05	(0.05)
Haryana DHBVNL	5.65 5.51	5.71 5.55	(0.06) (0.04)
UHBVNL	5.83	5.92	(0.09)
Himachal Pradesh	5.06	5.09	(0.03)
HPSEBL	5.06	5.09	(0.03)
Jammu & Kashmir JKPDD	4.18	2.15	2.03
Jharkhand	4.18 6.33	2.15 5.45	2.03 0.87
JBVNL	6.33	5.45	0.87
Karnataka	6.59	6.22	0.37
BESCOM	7.13	6.56	0.57
CHESCOM	5.64	5.38	0.26
GESCOM HESCOM	6.87 5.81	6.14 5.98	0.73
MESCOM	6.23	5.98 6.10	(0.17) 0.13
Kerala	5.63	5.53	0.10
KSEBL	5.63	5.53	0.10
Ladakh			
LadakhPD	05.40	4.00	00.50
Lakshadweep Lakshadweep ED	25.18 25.18	4.60 4.60	20.58 20.58
Madhya Pradesh	5.77	5.08	0.69
MPMaKVVCL	5.69	4.88	0.81
MPPaKVVCL	5.63	5.54	0.09
MPPoKVVCL	6.02	4.75	1.27
Maharashtra MSEDCL	6.69 6.70	6.34 6.30	0.36 0.39
BEST	6.63	7.22	(0.59)
Manipur	7.00	6.94	0.06
MSPDCL	7.00	6.94	0.06
State Sector	6.11	5.56	0.56
Meghalaya	5.71	3.85	1.86
MePDCL Mizoram	5.71 8.38	3.85 5.07	1.86 3.30
Mizoram Mizoram PD	8.38	5.07	3.30
Nagaland	7.32	1.86	5.45
NagalandPD	7.32	1.86	5.45

Puducherry	5.78	4.81	0.97
Puducherry PD	5.78	4.81	0.97
Punjab	6.07	5.90	0.17
PSPCL	6.07	5.90	0.17
Rajasthan	6.81	5.32	1.49
AVVNL	6.89	6.15	0.74
JdVVNL	6.83	4.51	2.31
JVVNL	6.73	5.45	1.29
Sikkim	5.22	3.51	1.71
SikkimPD	5.22	3.51	1.71
Tamil Nadu	6.76	5.01	1.75
TANGEDCO	6.76	5.01	1.75
Telangana	6.41	5.33	1.09
TSNPDCL	6.28	5.48	0.80
TSSPDCL	6.48	5.25	1.22
Tripura	4.90	4.60	0.30
TSECL	4.90	4.60	0.30
Uttar Pradesh	6.39	6.04	0.34
DVVNL	5.89	5.66	0.22
KESCO	8.06	7.44	0.62
MVVNL	6.70	6.37	0.33
PaVVNL	6.28	5.97	0.31
PuVVNL	6.50	6.02	0.48
Uttarakhand	4.94	4.74	0.21
UPCL	4.94	4.74	0.21
West Bengal	5.82	5.40	0.42
WBSEDCL	5.82	5.40	0.42
Private Sector	6.39	6.50	(0.12)
Delhi	7.42	7.22	0.20
BRPL	7.57	7.21	0.36
BYPL	7.16	6.75	0.41
TPDDL	7.41	7.59	(0.17)
Maharashtra	6.71	7.91	(1.20)
AEML	6.98	7.88	(0.90)
TPML	6.17	7.98	(1.81)
Odisha	4.78	4.44	0.34
TPNODL			
TPSODL			
TPWODL			
TPCODL			
NESCO Utility	4.86	4.60	0.26
SOUTHCOUtility	4.81	3.84	0.97
WESCOUtility	4.88	4.84	0.04
CESU	4.64	4.23	0.41
Uttar Pradesh	6.35	7.17	(0.83)
NPCL	6.35	7.17	(0.83)
West Bengal	6.48	6.97	(0.49)
CESC	6.54	7.05	(0.52)
IPCL	5.76	5.82	(0.06)
Grand Total	6.13	5.62	0.51

2000			Rs./kWh
	2020-21		
		ARR on Tariff Subsidy	Gap on Tariff Subsidy
		received(excluding	received(excluding
		Regulatory Income and	Regulatory Income and
	ACS	Revenue Grant under	Revenue Grant under
		UDAY for Loan takeover)	UDAY for Loan takeover)
State Sector	6.17	5.42	0.75
Andaman & Nicobar Islands Andaman& Nicobar PD	27.99 27.99	4.90 4.90	23.08
Andaman& Nicobar PD Andhra Pradesh	6.51	4.90 5.50	23.08 1.01
APCPDCL	6.60	5.74	0.86
APEPDCL	6.76	5.77	0.99
APSPDCL	6.28	5.20	1.08
Arunachal Pradesh	7.14	7.14	-
Arunachal PD Assam	7.14 6.77	7.14 6.67	0.10
APDCL	6.77	6.67	0.10
Bihar	6.22	5.33	0.89
NBPDCL	6.25	5.18	1.07
SBPDCL	6.20	5.45	0.74
Chandigarh	4.30	4.72	(0.42)
Chandigarh PD	4.30 4.72	4.72 4.52	(0.42)
Chhattisgarh CSPDCL	4.72	4.52	0.20 0.20
Dadra & Nagar Haveli and Daman & Diu	4.62	4.97	(0.35)
Daman & Diu PD	4.70	4.75	(0.05)
DNHPDCL	4.59 4.80	5.06 4.55	(0.47) 0.24
Goa PD	4.80	4.55	0.24
Gujarat	5.15	5.22	(0.07)
DGVCL	6.16	6.24	(0.07)
MGVCL	5.52	5.63	(0.11)
PGVCL	4.71	4.77	(0.06)
UGVCL	4.83 5.22	4.88 5.33	(0.05)
Haryana DHBVNL	5.08	5.16	(0.12)
UHBVNL	5.40	5.57	(0.18)
Himachal Pradesh	5.14	5.03	0.11
HPSEBL	5.14	5.03	0.11
Jammu & Kashmir JKPDD	4.13 4.13	2.32 2.32	1.81 1.81
Jharkhand	6.09	4.17	1.92
JBVNL	6.09	4.17	1.92
Karnataka	7.14	6.31	0.83
BESCOM	7.26	6.56	0.69
CHESCOM	6.80	5.73	1.07
GESCOM HESCOM	6.89 7.29	6.00 6.27	0.90 1.02
MESCOM	7.29	6.27	0.72
Kerala	6.02	5.84	0.18
KSEBL	6.02	5.84	0.18
Ladakh			
Ladakh PD Lakshadweep	23.70	4.26	19.44
Lakshadweep ED	23.70	4.26	19.44
Madhya Pradesh	5.85	4.62	1.23
MPMaKVVCL	5.63	4.40	1.23
MPPaKVVCL	5.93	5.18	0.74
MPPoKVVCL Meharachtro	6.02 6.34	4.24 5.81	1.77
Maharashtra MSEDCL	6.34	5.81	0.53 0.52
BEST	7.88	7.17	0.71
Manipur	6.70	6.63	0.07
MSPDCL	6.70	6.63	0.07
State Sector	6.17	5.42	0.75
Meghalaya MePDCL	5.12 5.12	4.72 4.72	0.40 0.40
Mizoram	11.19	6.26	4.94
MizoramPD	11.19	6.26	4.94
Nagaland	7.77	1.94	5.83
NagalandPD	7.77	1.94	5.83

Puducherry	4.97	4.93	0.04
Puducherry PD	4.97	4.93	0.04
Punjab	5.65	5.66	(0.01)
PSPCL	5.65	5.66	(0.01)
Rajasthan	6.68	5.99	0.69
AVVNL	6.67	6.31	0.36
JdVVNL	6.68	5.49	1.19
JVVNL	6.67	6.21	0.46
Sikkim	4.36	4.09	0.27
SikkimPD	4.36	4.09	0.27
Tamil Nadu	7,17	5.13	2.04
TANGEDCO	7,17	5.13	2.04
Telangana	6.46	5.39	1.06
TSNPDCL	6.43	5.32	1.11
TSSPDCL	6.47	5.43	1.04
Tripura	4.83	4.85	(0.01)
TSECL	4.83	4.85	(0.01)
Uttar Pradesh	6.86	5.92	0.94
DVVNL	5.98	5.11	0.87
KESCO	9.58	9.07	0.51
MVVNL	7.12	6.74	0.38
PaVVNL	7.18	6.06	1.12
PuVVNL	6.75	5.45	1.31
Uttarakhand	4.74	4.65	0.10
UPCL	4,74	4.65	0.10
West Bengal	6.12	5.16	0.96
WBSEDCL	6.12	5.16	0.96
Private Sector	6.20	6.37	(0.17)
Delhi	7,25	7.88	(0.63)
BRPL	7.71	8.44	(0.73)
BYPL	7.06	8.11	(1.05)
TPDDL	6.80	6.98	(0.18)
Maharashtra	6.79	6.41	0.38
AEML	7.18	6.71	0.47
TPML	6.08	5.85	0.23
Odisha	4.43	4.08	0.35
TPNODL			
TPSODL	3.87	4,22	(0.35)
TPWODL	4.32	4.82	(0.50)
TPCODL	3.63	3.56	0.07
NESCO Utility	4.81	4.56	0.25
SOUTHCO Utility	5,25	3.65	1.60
WESCO Utility	5.05	4.37	0.68
CESU			3.00
Uttar Pradesh	5.76	7.31	(1.55)
NPCL	5.76	7.31	(1.55)
West Bengal	6.65	7.04	(0.39)
CESC	6.75	7.14	(0.39)
IPCL	5.52	5.90	(0.39)
Grand Total	6.17	5.48	0.69

		Rs./kW	
	2021-22		
		ARR on Tariff Subsidy	Gap on Tariff Subsidy
		received (excluding	received(excluding
		Regulatory Income and	Regulatory Income and
	ACS	Revenue Grant under	Revenue Grant unde
		UDAY for	UDAY fo
		Loan takeover)	Loan takeover
State Sector	6.29	6.11	0.18
Andaman & Nicobar Islands			
Andaman& Nicobar PD			
Andhra Pradesh	6.31	5.97	0.34
APCPDCL	6.81	6.24	0.56
APEPDCL	6.18	6.24	(0.06
APSPDCL	6.19	5.66	0.53
Arunachal Pradesh Arunachal PD	6.43	2.65 2.65	3.78 3.78
Assam	6.36	6.66	(0.30
APDCL	6.36	6.66	(0.30
Bihar	6.41	5.77	0.65
NBPDCL	6.48	5.80	0.68
SBPDCL	6.36	5.74	0.62
Chandigarh	4.63	4.13	0.50
Chandigarh PD	4.63	4.13	0.50
Chhattisgarh	5.01	4.80	0.21
CSPDCL	5.01	4.80	0.21
Dadra &Nagar Haveli and Daman &	4.93	5.09	(0.16)
Diu Daman & Diu PD	F 00	5.23	/A 4A
DNHPDCL	5.08 4.88	5.23	(0.16)
Goa	5.13	4.55	(0.17) 0.58
Goa PD	5.13	4.55	0.58
Gujarat	5.57	5.62	(0.06
DGVCL	6.45	6.50	(0.04)
MGVCL	5.67	5.77	(0.10)
PGVCL	5.15	5.20	(0.06)
UGVCL	5.29	5.33	(0.04
Haryana	5.61	5.76	(0.15
DHBVNL	5.55	5.60	(0.05
UHBVNL	5.70	5.98	(0.28
Himachal Pradesh	5.27	5.17	0.10
HPSEBL	5.27	5.17	0.10
Jammu & Kashmir			
JKPDD			
Jharkhand	6.29	5.06	1.23
JBVNL	6.29	5.06	1.23
Karnataka	7.26	7.89	(0.64
BESCOM CHESCOM	7.38 6.61	7.74 7.57	(0.36) (0.95)
GESCOM	7.44	8.42	(0.98)
HESCOM	7.44	8.11	(0.44)
MESCOM	6.22	7.86	(1.64
Kerala	5.55	5.80	(0.25)
KSEBL	5.55	5.80	(0.25
Ladakh	5.64	5.21	0.42
Ladakh PD	5.64	5.21	0.42
Lakshadweep			
Lakshadweep ED			
Madhya Pradesh	6.02	5.76	0.26
MPMaKVVCL	5.64	5.64	(0.01)
MPPaKVVCL	6.71	6.08	0.63
MPPoKVVCL	5.65	5.51	0.13
Maharashtra	6.42	6.47	(0.05
MSEDCL BEST	6.36	6.45 7.08	(0.09
_	8.46	6.94	1.38 0.25
Manipur MSPDCL	7.19 7.19	6.94	0.25 0.25
State Sector	6.29	6.11	0.25
Meghalaya	5.39	4.77	0.10
MePDCL	5.39	4.77	0.62
Mizoram	10.33	5.92	4.41
MizoramPD	10.33	5.92	4.41
	8.11	2.39	5.72

Nagaland PD	8.11	2.39	5.72
Puducherry	5.26	5.49	(0.23)
Puducherry PD	5.26	5.49	(0.23)
Punjab	5.64	5.91	(0.27)
PSPCL	5.64	5.91	(0.27)
Rajasthan	6.37	6.62	(0.25)
AVVNL	6.46	7.03	(0.56)
JdVVNL	6.42	6.28	0.14
JVVNL	6.25	6.64	(0.39)
Sikkim	4.28	4.28	(0.00)
SikkimPD	4.28	4.28	(0.00)
Tamil Nadu	7.48	5.79	1.68
TANGEDCO	7.48	5.79	1.68
Telangana	6.61	6.52	0.08
TSNPDCL	6.91	6.82	0.09
TSSPDCL	6.48	6.40	0.08
Tripura	5.34	5.00	0.34
TSECL	5.34	5.00	0.34
Uttar Pradesh	7.42	6.86	0.56
DVVNL	6.91	5.76	1.15
KESCO	8.59	8.01	0.57
MVVNL	8.41	7.57	0.84
PaVVNL	7.18	6.98	0.20
PuVVNL	7.15	6.95	0.20
Uttarakhand	4.90	4.90	(0.00)
UPCL	4.90	4.90	(0.00)
West Bengal	5,22	5.42	(0.20)
WBSEDCL	5,22	5.42	(0.20)
Private Sector	6,22	6.54	(0.32)
Delhi	6.86	7.07	(0.21)
BRPL	7.23	7.51	(0.28)
BYPL	6.91	6.91	0.00
TPDDL	6.39	6.68	(0.29)
Maharashtra	7.36	7.71	(0.35)
AEML	7.62	8.08	(0.45)
TPML	6.88	7.06	(0.18)
Odisha	4.61	4.99	(0.37)
TPNODL	5.01	5.25	(0.24)
TPSODL	4.18	4.40	(0.22)
TPWODL	4.55	5.29	(0.74)
TPCODL	4.63	4.77	(0.14)
NESCO Utility			(0)
SOUTHCO Utility			
WESCO Utility			
CESU			
Uttar Pradesh	6.47	7.58	(1.11)
NPCL	6.47	7.58	(1.11)
West Bengal	6.80	7.06	(0.26)
CESC	6.85	7.16	(0.31)
IPCL	6.26	5.98	0.28
Grand Total	6.29	6.14	0.15

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1199 ANSWERED ON 27.07.2023

## **SAUBHAGYA YOJANA**

1199. SHRI MANOJ KOTAK:
SHRIMATI RAKSHA NIKHIL KHADSE:
SHRI ACHYUTANANDA SAMANTA:

Will the Minister of POWER be pleased to state:

- (a) whether it is a fact that the Government has launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana SAUBHAGYA with an objective to achieve universal household electrification, by providing electricity connections to all unelectrified households;
- (b) if so, whether any assessment has been made regarding the progress of the implementation of 'Pradhan Mantri Sahaj Bijli Har Ghar Yojana SAUBHAGYA' launched in September 2017 with the objective of providing electricity to every house in the country; and
- (c) if so, the details thereof, particularly in Garhchiroli in Maharashtra, Chhattisgarh, Kandhamal in Odisha and other Naxal affected areas in the country?

### ANSWER

## THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a): The Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana – SAUBHAGYA in October, 2017 with the objective of achieving universal household electrification, by providing electricity connections to all un-electrified households in rural areas and all poor households in urban areas in the country. Under the aegis of SAUBHAGYA, as on 31.03.2019, all households were reported electrified by the States, except 18,734 households in Left Wing Extremists (LWE) affected areas of Chhattisgarh. Subsequently, seven States namely Assam, Chhattisgarh, Jharkhand, Karnataka, Manipur, Rajasthan and Uttar Pradesh reported that around 19.09 lakh un-electrified households, identified before 31.03.2019, which were unwilling earlier but later expressed willingness to get electricity connection. This was also sanctioned. All these seven States had reported 100% household electrification as on 31.03.2021. A total of 2.817 crore households were electrified since the launch of SAUBHAGYA, up to 31.03.2021.

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Thereafter, some States reported that some households remained to be electrified, against which, States reported electrification of 4.43 lakh households. Accordingly, a total 2.86 crore households have been electrified. State-wise details are at Annexure. The scheme stands closed on 31.03.2022.

- (b): During the implementation phase of SAUBHAGYA, the scheme was regularly monitored by Ministry of Power for the entire country at various levels from time to time. Following steps were taken by the Government for implementation and completion of the projects:
- (i) At Central level, an Inter-Ministerial Monitoring Committee on SAUBHAGYA, headed by the Secretary (Power), and Government of India, monitored the implementation of the scheme. Besides this, the progress of scheme was also being reviewed with the States / Power Utilities in Review, Planning and Monitoring (RPM) meetings of Ministry of Power.
- (ii) At State level, a Committee under the Chairmanship of Chief Secretary monitored the progress to resolve issues relating to implementation. Further, the progress was reviewed on a monthly basis and on a fortnightly basis.
- (iii) Rural Electrification Corporation Limited (REC), the nodal agency, monitored implementation of the scheme through its State Offices at field level.
- (iv) At District level, (DISHA) District Development Coordination & Monitoring Committee meetings [under the aegis of Ministry of Rural Development and District Electricity Committee (DEC)] headed by senior-most Hon'ble Member of Parliament (Lok Sabha) of the District & other MPs of the district as co-chair with District Magistrate as Convener, reviewed the progress.
- (c): As per SAUBHAGYA portal, a total of 15,17,922 households have been electrified in Maharashtra state including 37,949 households of Gadchiroli district. As per SAUBHAGYA portal, a total of 7,92,368 households have been electrified in Chhattisgarh State, including additional sanctioned under DDUGJY, till 31.03.2022. In kandhamal district, Odisha, a total of 52,043 households have been electrified as per SAUBHAGYA portal.

## **ANNEXURE**

## ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1199 ANSWERED IN THE LOK SABHA ON 27.07.2023

	State-wise electrification of households since launch of Saubhagya Scheme including Additional Households achievment under DDUGJY									
SI. No.	Name of the States	No of Households electrified from 11.10.2017 to 31.03.2019 as per Saubhagya Portal	Additional Sanction allowed under Saubhagya		Further Additional Households sanctioned under DDUGJY					
								No of Households reported electrified from 01.04.2019 to 31.03.2021	Total HHs electrified as on 31.03.2021(A)	Households Sanctioned during 2021-22
			1	Andhra Pradesh*	181,930	0	181,930			181,930
2	Arunachal Pradesh	47,089	0	47,089	7859	0	47,089			
3	Assam	1,745,149	200,000	1,945,149	480249	381507	2,326,656			
4	Bihar	3,259,041	0	3,259,041			3,259,041			
5	Chhattisgarh	749,397	40,394	789,791	21981	2577	792,368			
6	Gujarat*	41,317	0	41,317			41,317			
7	Haryana	54,681	0	54,681			54,681			
8	Himachal Pradesh	12,891	0	12,891			12,891			
9	Jammu & Kashmir	377,045	0	377,045			377,045			
10	Jharkhand	1,530,708	200,000	1,730,708			1,730,708			
11	Karnataka	356,974	26,824	383,798			383,798			
12	Ladakh	10,456	0	10,456			10,456			
13	Madhya Pradesh	1,984,264	0	1,984,264	99722	0	1,984,264			
14	Maharashtra	1,517,922	0	1,517,922			1,517,922			
15	Manipur	102,748	5,367	108,115	21135	0	108,115			
16	Meghalaya	199,839	0	199,839	420	401	200,240			
17	Mizoram	27,970	0	27,970			27,970			
18	Nagaland	132,507	0	132,507	7009	7009	139,516			
19	Odisha	2,452,444	0	2,452,444			2,452,444			
20	Puducherry*	912	0	912			912			
21	Punjab	3,477	0	3,477			3,477			

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22	Rajasthan	1,862,736	212,786	2,075,522	210843	52206	2,127,728
23	Sikkim	14,900	0	14,900			14,900
24	Tamil Nadu*	2,170	0	2,170			2,170
25	Telangana	515,084	0	515,084			515,084
26	Tripura	139,090	0	139,090			139,090
27	Uttar Pradesh	7,980,568	1,200,003	9,180,571	334652	0	9,180,571
28	Uttarakhand	248,751	0	248,751			248,751
29	West Bengal	732,290	0	732,290			732,290
	Total	26,284,350	1,885,374	28,169,724	1,183,870	443,700	28,613,424

<sup>\*</sup>Electrified prior to Saubhagya and not funded under Saubhagya

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1203 ANSWERED ON 27.07.2023

## AMENDMENT IN ELECTRICITY (CONSUMER RIGHTS) RULES, 2020

## 1203. SHRI S. VENKATESAN:

Will the Minister of POWER be pleased to state:

- (a) whether changes have been made in Electricity (Consumer rights) Rules, 2020 by introducing the system of Time Of Day (TOD) having 10 to 20 per cent higher tariff for peak hours i.e. 6 am to 10 am and 6 pm to 10 pm;
- (b) if so, whether Government has taken note of concerns raised by the MSME entrepreneurs that TOD would affect their ventures and the steps taken to allay their fears; and
- (c) whether Ministry of Power has received any request from the Ministry of MSME to reconsider their decision and if so, the details thereof?

### ANSWER

## THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

- (a): Ministry of Power vide notification dated 14.06.2023 has issued the Electricity (Rights of Consumers) Amendment Rules, 2023 wherein the rule for Time of Day (ToD) Tariff has also been specified. This rule inter alia provides that:
- i. ToD tariff for Commercial and Industrial consumers having maximum demand more than 10kW shall be made effective from a date not later than 1st April, 2024 and for other consumers except agricultural consumers, the ToD tariff shall be made effective not later than 1st April, 2025.
- ii. ToD tariff, during the peak period of the day, for Commercial and Industrial consumers shall not be less than 1.20 times the normal tariff and for other consumers it shall not be less than 1.10 times the normal tariff.

- iii. Tariff for solar hours, of the day, to be specified by the State Commission shall be at least twenty percent (20%) less than the normal tariff for that category of consumers.
- (b) & (c): Ministry of Power has not received any representations from MSME entrepreneurs. Further, the ToD tariff comprising separate tariffs for peak hours, solar hours and normal hours, sends price signals to consumers to manage their load in accordance with the Tariff. Since, the tariff during the solar hours will be at least 20% less than the normal tariff, the consumer including MSMEs can shift consumption during solar hours when power cost is less and can be benefitted.

Ministry of Micro, Small and Medium Enterprises has not requested Ministry of Power to reconsider its decision.

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1237 ANSWERED ON 27.07.2023

## **DEMAND AND SUPPLY OF POWER**

### **1237. SHRI DIBYENDU ADHIKARI:**

Will the Minister of POWER be pleased to state:

- (a) whether the Government has fixed the target for electricity generation at 1750 billion unit (BU) for the year 2023-24, wherein 75 per cent electricity would be generated through Thermal Power plant with average Plant Load Factor (PLF) of 56 per cent;
- (b) if so, the details thereof; and
- (c) the proposal with the Government to bridge the gap between demand and supply of electricity, particularly during peak season in the country?

#### ANSWER

## THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

- (a) & (b): The electricity generation programme has been fixed at 1750 BU for the year 2023-2024. 75.66 percent of electricity would be generated from Thermal Power Plant with an average plant load factor (PLF) of 66.90 percent.
- (c): There is adequate capacity available in the country to meet the rising demand of power with projected Energy Surplus of 56,796 MU (3.6%) and Peak Surplus of 1,717 MW (0.7%) in the year 2023-24. The details of all India Energy Requirement, Energy Availability, Peak Demand, and Peak Met are given at Annexure.

In order to increase the power generation capacity in the country, 18 numbers of coal based thermal power projects having total capacity of 25440 MW, one (1) no. gas based thermal power project having capacity of 370 MW and 42 numbers of hydro-electric projects (above 25 MW) having total capacity of 18033.5 MW (as on 30th June 2023) are under construction in the country. Further, Nuclear capacity totalling to 8000 MW is under various stages of construction.

In addition, the following steps have been taken for meeting the increased demand for power during peak season in the country:

- (i) Measures have been taken to ensure the maximum availability of the generation capacity. The generators shall complete the maintenance work of their plants well before the period of high demand.
- (ii) Monitoring and Coordination with Ministries of coal and railways on a regular basis for increasing the production and dispatch of coal as much as possible.
- (iii) All generators have been asked to ensure import of Coal for blending purposes in case of shortage of domestic coal so that there is no load shedding.
- (iv) All captive coal blocks have been asked to maximize the coal production to supplement the coal supply from domestic coal companies (CIL and SCCL).
- (v) Additional arrangement for gas for running gas based stations has been planned from GAIL, during high power demand months.
- (vi) The Electricity Amendment Rule, 2022 has been notified on 29th December 2022 which mandate preparation of resource adequacy plan so as to successfully meet the power demand of the consumers.
- (vii) Imported Coal Based (ICB) plants have been issued statutory directions under Section 11 of Electricity Act to stock coal and generate power during high demand period.
- (viii) Reservoir level of Hydro Stations are being monitored for optimum utilization of water. All hydro plants have been instructed to operate in consultation with RLDCs/ SLDCs to optimize water utilization in current month for better availability in next month.

#### **ANNEXURE**

# ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 1237 ANSWERED IN THE LOK SABHA ON 27.07.2023

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The details of anticipated All India Energy Requirement, Energy Availability, Peak Demand, and Peak Met for the year 2023-24 is as below:

Energy					Peak		
Requirement	Availability	Surplus(+)/ Deficit(-)		Demand	Availability	Surplu Defic	` '
(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
15,89,873	16,46,670	56,796	3.6	2,29,018	2,30,734	1,717	0.7

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1245 ANSWERED ON 27.07.2023

#### **HYDRO ELECTRIC PROJECTS**

#### 1245. SHRI V.K. SREEKANDAN:

Will the Minister of POWER be pleased to state:

- (a) whether it is a fact that the ban on mining, quarrying and sand mining in ecologically sensitive areas does not affect hydel projects;
- (b) whether the Government proposes that incidental mining and quarrying in the early stages of hydel projects and Pumped Storage Projects (PSPs) should be exempted to enable construction of water conductor systems and underground power houses and if so, the details thereof;
- (c) whether it is also true that the Government proposes to include a new clause in the notification permitting the construction of transmission lines associated with the hydro electric projects and PSPs; and
- (d) if so, the details thereof and the steps taken in this regard?

#### ANSWER

#### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

- (a): Hydro Electric Projects (HEPs) commence construction after the grant of Environmental Clearance (EC) by the Ministry of Environment, Forest & Climate Change (MoEF&CC) based on Environmental Impact Assessment (EIA) studies. During the EIA studies, all ecological aspects including availability of nearby demarcated/designated quarries are properly examined. The construction of HEPs approved with demarcated/designated quarries does not get affected unless there is subsequent ban on these quarries, which may delay the project and affect its viability.
- (b): As per information received from MoEF&CC, no such proposal is under consideration in their Ministry.
- (c) & (d): Laying down of the transmission line does not attract the provisions of the EIA Notification, 2006, as amended, hence no prior Environmental Clearance is required for laying of transmission line of Hydroelectric Project (HEP)/Pumped Storage Project (PSP). However, it requires Forest Clearance (FC) under the provisions of the Forest (Conservation) Act, 1980.

#### GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA

#### UNSTARRED QUESTION NO.1248 ANSWERED ON 27.07.2023

#### **INSTALLATION OF FLUE GAS DESULPHURIZATION IN TPPs**

**1248. SHRI JAGANNATH SARKAR:** 

DR. KALANIDHI VEERASWAMY: SHRI GAURAV GOGOI:

Will the Minister of POWER be pleased to state:

- (a) whether the Government has circulated compliance requirements for installing Flue Gas Desulphurization (FGD) in all Thermal Power Plants (TPPs) within the existing deadline;
- (b) if so, the details thereof along with the steps taken by the Government to ensure compliance by TPPs and if not, the reasons therefor;
- (c) whether the Government has information on the number of TPPs that have installed and operationalized FGDs in their facility;
- (d) if so, the details thereof, State/UT-wise and if not, the reasons therefor;
- (e) whether the Government has provision of extending financial support or incentives to encourage the installation of FGD systems in the TPPs; and
- (f) if so, the details thereof and if not, the reasons therefor?

#### ANSWER

## THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) & (b): All Thermal Power Plants are required to comply with the emission norms as notified by the Ministry of Environment, Forest and Climate Change (MoEF&CC) and directions given by Central Pollution Control Board (CPCB) from time to time. For compliance to Sulphur dioxide (SO2) emission norms, Thermal Power Plants are installing Flue Gas Desulphurisation (FGD) equipment. MoEF&CC vide notification dated

05.09.2022 has specified following timelines for SO2 compliance for non-retiring Thermal Power Plants for compliance to emission norms:

SI. No.	Category	Location/Area	Timelines for compliance
1	Category A	Within 10 km radius of National Capital Region (NCR) or cities having million plus population (as per 2011 census of India)	Upto 31 <sup>st</sup> December 2024
2	Category B	Within 10 km radius of Critically Polluted Areas or Non-attainment cities (as defined by CPCB)	
3	Category C	Other than those included in category A and B	Upto 31 <sup>st</sup> December 2026

For non-compliance beyond the specified timelines, MoEF&CC has prescribed following environment compensation on the non-retiring thermal power plants:

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

- (c) & (d): At present, 22 units having a total capacity of 9280 MW have installed and operationalized FGDs in their facility. State wise list is annexed.
- (e) & (f): The additional cost implication due to installation of FGD by Thermal Power Plants is to be considered for pass through in tariff by the appropriate Regulatory Commission.

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## ANNEXURE REFERRED IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO. 1248 ANSWERED IN THE LOK SABHA ON 27.07.2023

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#### **Units with FGD installed**

			Units with FG	T		
SI.	State	Sector	Organisation	Name of Project	Unit	Total
No					No	Capacity
					_	(MW)
1	Haryana			MAHATMA GANDHI TPS	1	660.00
2	Haryana	Private	Jhajjar Power	MAHATMA GANDHI TPS	2	660.00
3	Uttar Pradesh	Central	NTPC	DADRI (NCTPP)	1	210.00
4	Uttar Pradesh	Central	NTPC	DADRI (NCTPP)	2	210.00
5	Uttar Pradesh	Central	NTPC	DADRI (NCTPP)	3	210.00
6	Uttar Pradesh	Central	NTPC	DADRI (NCTPP)	4	210.00
7	Uttar Pradesh	Central	NTPC	DADRI (NCTPP)	5	490.00
8	Uttar Pradesh	Central	NTPC	UNCHAHAR TPS	6	500.00
9	Tamil Nadu	Private	ITPCL	ITPCL TPP	1	600.00
10	Tamil Nadu	Private	ITPCL	ITPCL TPP	2	600.00
11	Gujarat	Private	APL	MUNDRA TPS	7	660.00
12	Gujarat	Private	APL	MUNDRA TPS	8	660.00
13	Gujarat	Private	APL	MUNDRA TPS	9	660.00
14	Madhya	Central	NTPC	VINDHYACHAL STPS	13	500.00
	Pradesh					
15	Maharashtra	Private	JSW	JSW RATNAGIRI TPP	1	300.00
16	Maharashtra	Private	JSW	JSW RATNAGIRI TPP	2	300.00
17	Maharashtra	Private	JSW	JSW RATNAGIRI TPP	3	300.00
18	Maharashtra	Private	JSW	JSW RATNAGIRI TPP	4	300.00
19	Maharashtra	Private	APL	DAHANU TPS	1	250.00
20	Maharashtra	Private	APL	DAHANU TPS	2	250.00
21	Maharashtra	Private	TATA PCL	TROMBAY TPS	5	500.00
22	Maharashtra	Private	TATA PCL	TROMBAY TPS	8	250.00
				Total	22	9280.00
	•					

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1261 ANSWERED ON 27.07.2023

#### **CONSUMPTION OF POWER**

#### **†1261. SHRI VISHNU DAYAL RAM:**

Will the Minister of POWER be pleased to state:

- (a) whether the consumption of power has increased throughout the country during the last three years and the current year;
- (b) if so, the details thereof;
- (c) whether the generation of power is adequate to meet its demand in the country;
- (d) if so, the details thereof and if not, the reasons therefor;
- (e) the steps being taken by the Government to meet the increasing demand of power;
- (f) whether the Government has sanctioned new power projects in the country; and
- (g) if so, the details thereof, State-wise including Jharkhand?

#### ANSWER

#### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (d): The consumption of electricity has increased in the country during the last three years and the current year. The details of all India Power Supply Position in the country in terms of Energy during the last three years and current year (up-to June, 2023) is given at Annexure-I. There is adequate generation capacity to meet the demand of the country.

.....2.

(e) to (g): In order to meet the increasing demand of power, 18 numbers of coal based thermal power projects having total capacity of 25440 MW, one (1) gas based thermal power project having capacity of 370 MW and 42 numbers of hydro-electric projects (above 25 MW) having total capacity of 18033.5 MW are under construction in the country as on 30th June 2023. Further, Nuclear capacity totalling to 8000 MW is under various stages of construction. Also, 22840 MW additional coal based thermal capacity has been planned by 2030, out of which 15300 MW will be under Central Sector and 7540 MW under State Sector. Details are given at Annexure-II

As per the Electricity Act, 2003, generation is a de-licensed activity and 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 related to connectivity with the grid. The concurrence of the Central Electricity Authority (CEA) is required only in case of setting up of hydro-generating station.

Two (02) numbers of coal based Thermal Power Project in Central Sector (NTPC) having capacity of 3720 MW (two units of 660 MW each in North Karanpura TPS and three units of 800 MW each in Patratu TPS are under construction in the State of Jharkhand. Further, Koderma Thermal Power Project having capacity of 1600 MW is planned in the State of Jharkhand by DVC.

## ANNEXURE REFERRED IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO.1261 ANSWERED IN THE LOK SABHA ON 27.07.2023

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The details of all India Power Supply Position in the country in terms of Energy during the last three and current year 2023-24 (upto June, 2023):

FY	Energy Requirement (MUs)	Energy Supplied (MUs)	% Growth Energy Requirement	% Growth Energy Supplied	% Energy not Supplied
	(1)	(2)	(3)	(4)	(5)
2020-21	1275534	1270663	-	-	0.4
2021-22	1379812	1374024	8.2	8.1	0.4
2022-23	1511847	1504264	9.6	9.5	0.5
2023-24 ( Upto June, 2023)*	408621	407762	1.0	1.8	0.2

<sup>\*</sup>Provisional

## ANNEXURE REFERRED IN REPLY TO PARTS (e) TO (g) OF UNSTARRED QUESTION NO.1261 ANSWERED IN THE LOK SABHA ON 27.07.2023

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#### I Under Construction Coal Based Thermal Projects

UTILITY NAME	Project Name	Capacity Under Construction
I. Central Sector (1258	O-MW)	
NTPC /PVUNL	Barh STPP, St-I (3x660 MW)	1320
	Telangana STPP St-I (2x800 MW)	1600
	North Karanpura STPP (3x660 MW)	1320
	Patratu STPP (3x800 MW)	2400
	Talcher TPP, St - III (2x660 MW)	1320
SJVN	BUXAR TPP (2x660 MW)	1320
NUPPL	Ghatampur TPP (3x660MW)	1980
THDC	Khurja SCTPP (2x660 MW)	1320
II. State Sector (1286)	D MW)	
TANGEDCO	North Chennai TPP St-III (1x800 MW)	800
	Ennore SEZ STPP (2x660 MW)	1320
	Udangudi STPP, St-I (2x660 MW)	1320
UPRVUNL	Jawaharpur STPP (2x660 MW)	1320
	Obra-C STPP (2x660 MW)	1320
	Panki TPS Ext (1x660 MW)	660
APGENCO / APPDCL	Dr.NT TPS, St-V (1x800 MW)	800
TSGENCO	Yadadri TPS (1x800 MW)	4000
MAHAGENCO	Bhusawal TPS (1x660 MW)	660
WBPDCL	Sagardighi TPP, St-III (1x660 MW)	660
Total	25440 MW	

### II Under Construction Hydro Electric Projects (above 25 MW)

SI. No	Name of Scheme			I.C.	Сар.	
	(Executing Agency)	Sector	District	( No. X MW.)	Under Execution (MW)	River/Basin
	Andhra Pradesh					
1	Polavaram (APGENCO/ Irrigation Dept., A.P.)	State	East & West Godavari	12x80	960.00	Godavari/ EFR
2	Lower Sileru Extension (APGENCO)	State	Alluri Sitharamaraju	2x115	230.00	Sileru/ Godavari
3	Pinnapuram (Greenko AP01 IREP Private Limited)	Private	Kurnool	4x240 + 2x120	1200.00	Pennar Basin/EFR
	Sub-total: Andhra Pradesh				2390.00	
	Arunachal Pradesh					
4	Subansiri Lower (NHPC)	Central	Lower Subansiri	8x250	2000.00	Subansiri/ Brahmaputra
5	Dibang Multipurpose Project (NHPC)	Central	Lower Dibang Valley	12x240	2880.00	Dibang / Brahmaputra
	Sub-total: Ar	unachal Pı	radesh		4880.00	
	Assam					
6	Lower Kopli (APGCL)	State	Dima Hasao & Karbi Anglong	2x55+2x 2.5+1x5	120.00	Kopili/ Brahmaputra
	Sub-total: Assam				120.00	
	Himachal Pradesh					
7	Parbati St. II (NHPC)	Central	Kullu	4x200	800.00	Parbati/Bea s/Indus
8	Luhri-I (SJVN)	Central	Kullu/Shimla	2x80+2x 25	210.00	Satluj/Indus
9	Dhaulasidh (SJVN)	Central	Hamirpur/ Kangra	2x33	66.00	Beas/Indus
10	Sunni Dam (SJVN)	Central	Shimla/Mandi	4x73+1x 73+1x17	382.00	Satluj
11	Uhl-III (BVPCL)	State	Mandi	3x33.33	100.00	Uhl/Beas/ Indus
12	Shongtong Karcham (HPPCL)	State	Kinnaur	3x150	450.00	Satluj/ Indus
13	Chanju-III (HPPCL)	State	Chamba	3x16	48.00	Chanju Nallah
14	Tidong-I (Statkraft IPL)	Private	Kinnaur	3x50	150.00	Tidong/ Satluj/Indus

15	Kutehr (JSW Energy Ltd)	Private	Chamba	3×80	240.00	Ravi/ Indus
16	Tangnu Romai (TRPG)	Private	Shimla	2x22	44.00	Pabbar/Tons/ Yamuna/ Ganga
	Sub-total: Hima	achal Prac	lesh		2490.00	
	Jammu & Kashmir					
17	Pakal Dul (CVPPL)	Central	Kishtwar	4x250	1000.00	Marusadar/
• •	i akai bai (00112)	ociitiai	Risilewai	-AZ200	1000100	Chenab /
						Indus
40	W: (OVDDI )	041	17: - 1-4	4450	604.00	
18	Kiru (CVPPL)	Central	Kishtwar	4x156	624.00	Chenab/ Indus
19	Ratle (RHEPPL /	Central	Kishtwar	4x205 +	850.00	Chenab/Indus
	NHPC)			1x30		
20	Kwar (CVPPPL)	Central	Kishtwar	4x135	540	Chenab/ Indus
21	Parnai (JKSPDC)	State	Poonch	3x12.5	37.50	Jhelum/ Indus
22	Lower Kalnai	State	Kishtwar	2x24	48.00	Chenab/ Indus
	(JKSPDC)					
	Sub-total: Jami	mu & Kas	hmir		3099.50	
	Kerala					
23	Pallivasal (KSEB)	State	Idukki	2x30	60.00	Mudirapuzha/
	r amvasar (ROLD)	Otato	Iddikki	ZAGG	00.00	Periyar/
						Baypore
						Periyar/ WFR
24	Thottiyar (KSEB)	State	ldukki	1x30+1x	40.00	Thottiyar/
				10		Periyar/
						/ Baypore
						Periyar/ WFR
25	Mankulam (KSEB)	State	ldukki	2x20	40.00	Melachery
	Sub-total	: Kerala	1		140.00	
	Madhya Prades	h				
		<u></u>	Khargone			Narmada/CIRS
26	Maheshwar (SMHPCL)	Private	&	10x40	400.00	Italiiada/Oliko
20	Maneshwai (SMITPCL)	Filvate	•	10240	400.00	
	A 1 4 4 1 22	<u> </u>	Khandwa		400.00	
	Sub-total: Mad	inya Prade	esn 		400.00	
	Maharashtra					
27	Koyna Left Bank	State	Satara	2x40	80.00	Koyna/
	(WRD,MAH)	Jiale	Jacara	24-0	30100	Krishna/EFR
	Sub-total: M	aharashtr	a		80.00	
	Punjab					
28	Shahpurkandi (PSPCL/	State	Pathankot	3x33+3x	206.00	Ravi/ Indus
	Irrigation Deptt., Pb.)			33+1x8		
	Sub-total: Punjab				206.00	
	Sikkim				200.00	
	SIKKIM		C41-			T
29	Teesta St. VI NHPC	Central	South	4x125	500.00	Teesta/Brahma
			Sikkim			putra
30	Rangit-IV (NHPC)	Central	West	3x40	120.00	Rangit/ Teesta/
			Sikkim			Brahmaputra
31	Bhasmey (Gati	Private	East	2x25.5	51.00	Rangpo/ Teesta/
	Infrastructure)		Sikkim			Brahmaputra
	,					•

32	Rangit-II (Sikkim Hydro)	Private	West Sikkim	2x33	66.00	Greater Rangit/ Teesta/ Brahmaputra
33	Panan (Himagiri)	Private	North Sikkim	4x75	300.00	Rangyongchu/ Teesta/ Brahmaputra
	Sub-total: Sikkim				1037.00	
	Tamil Nadu					
34	Kundah Pumped Storage Phase-I,II&III)	State	Nilgiris	4x125	500.00	Kundah/ Bhavani/ Cauvery/EFR
	Sub-total: Tamil Na	adu			500.00	
	Uttarakhand					
35	Vishnugad Pipalkoti (THDC)	Central	Chamoli	4x111	444.00	Alaknanada/ Ganga
36	Naitwar Mori (SJVNL)	Central	Uttarkashi	2x30	60.00	Tons/Yamuna/ Ganga
37	Tapovan Vishnugad (NTPC)	Central	Chamoli	4x130	520.00	Dhauliganga / Alaknanada & /Ganga
38	Tehri PSS (THDC)	Central	Tehri Garhwal	4x250	1000.00	Bhilangna/ Bhagirathi/ Ganga
39	Lakhwar Multipurpose Project (UJVNL)	State	Dehradun & Tehri Garhwal	3x100	300.00	Yamuna
40	Lata Tapovan (NTPC)	Central	Chamoli	3x57	171.00	Dhauliganga / Alaknanada & Ganga
41	Phata Byung (LANCO)	Private	Rudrapray ag	2x38	76.00	Mandakini/ Alaknanda Ganga
	Sub-total: Ut	tarakhan	d		2571.00	
	West Bengal					
42	Rammam-III (NTPC)	Central	Darjeeling	3x40	120.00	Rammam/ Rangit/Teesta Brahmaputra
	Sub-total: West Bengal				120.00	
	Total:				18033.50	

### III Under Construction Gas based thermal Power plant

SI. No	PROJECT	State	Sector	UNIT	Capacity (MW)
1	Yelahanka CCPP (KPCL)	Karnataka	STATE	GT+ST	370

#### IV. Under Construction Nuclear Capacity

State	Location	Project	Capacity (MW)			
Projects Under Construction						
Gujarat	Kakrapar	KAPP- 4	1 X 700			
Rajasthan	Rawatbhata	RAPP-7&8	2 X 700			
	Marchaulanian	KKNPP-3&4	2 X 1000			
	Kudankulam	KKNPP-5&6	2 X 1000			
Tamilnadu		PFBR				
	Kalpakkam	(implemented by BHAVINI)	500			
Haryana	Gorakhpur	GHAVP-1&2	2 X 700			
Total	·	<u> </u>	8000			

### V. Central Sector Additional Planned Thermal Capacity upto 2030

State	Utility Name	Project Name	Capacity Planned (MW)
Bihar	SJVN	Buxar (1x660)	660
	NTPC	Lara STPP-II (2x800)	1600
Chhattisgarh	NTPC	Sipat-III (1x800)	800
Jharkhand	DVC	Koderma (2x800)	1600
	NTPC	Darlipali-II (1x800)	800
Odisha	NLC	Talabira STPS (3x800)	2400
TamilNadu	NLC	Neyveli TPS-II 2nd Expansion (2x660)	1320
	NTPC	Singrauli –III (2x800)	1600
Uttar Pradesh	NTPC	Meja II (2x800)	2400
West Bengal	DVC	Raghunathpur (2x660)	1320
	DVC	Durgapur (1x800)	800
		Total	15300 MW

#### VI: State Sector Additional Planned Thermal Capacity upto 2030

Utility Name	Project Name	Capacity Planned
Chhattisgarh	Super Critical Power Plant at Korba West, Korba (2x660)	1320
MSPGCL, Maharashtra	Chandrapur STPP (1x660)	660
MPPCL, Madhya	Amarkantak TPS (1x660)	660
Pradesh	Satpura TPP U-12, Phase -V (1x660)	660
Odisha	OPGC Expansion Project Stage III IB TPP (2x660)	1320
	Kalisindh TPS	800
Rajasthan (RRVUNL)	(1x800)	
Telangana	Singareni TPS (Stage-II) (1x800)	800
MSPGCL, Maharashtra	Koradi (2x660)	1320
	Total	7540 MW

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1270 ANSWERED ON 27.07.2023

#### PROCUREMENT OF BIOMASS PELLETS FOR CO-FIRING IN TPPS

1270. SHRI RITESH PANDEY:
SHRI HASNAIN MASOODI:

SHRIMATI SUNITA DUGGAL:

Will the Minister of POWER be pleased to state:

- (a) whether the Government has data on the number of power plants successfully implementing the mandate to use five per cent biomass pellets in co-firing with coal, as per the revised biomass policy;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) whether the Government has taken any initiatives to ensure the availability and procurement of biomass pellets for co-firing in Thermal Power Plants (TPPs);
- (d) if so, the details of Metric Tonnes of agri residues-based biomass that has been co-fired in coal based thermal power plants till May 2023, State/ UT-wise; and
- (e) if not, the reasons therefor?

#### ANSWER

#### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) & (b): There are 47 number of Thermal Power Plants which have carried out co-firing of agro residue based biomass pellets with coal. Recently, Ministry of Power has issued modification on 16.06.2023 to revise the biomass policy dated 08.10.2021 and now it mandates 5% biomass co-firing in Thermal Power Plants (TPPs) from 2024-25. This obligation shall increase to 7% from 2025-26.

.....2.

(c): The Government has taken many initiatives to ensure the availability and procurement of biomass pellets for co-firing in TPPs like, Finance Assistance Schemes by MNRE and CPCB have been issued for biomass pellet manufacturing, Reserve bank of India (RBI) has approved 'Biomass pellet manufacturing' as an eligible activity under Priority Sector Lending (PSL), Procurement Provision of Biomass Category has been created on GeM portal, Revised Model long term contract for Biomass supply was issued by MOP, Vendor database finalized and listed on SAMARTH website, awareness programmes & Advertisement Campaign, Provision of Udyam Aadhaar on National Single Window System, Bankable Model Project Report for Biomass Pellet Plants etc.

Further, MoP through a policy Addendum dated 03-05-2023 has indicated the various type of various agro residues such as stubble/straw/stalk/husk which are surplus and not being used as animal fodder for making the biomass pellets. This includes agro-residue obtained from crops like Paddy, Soya, Arhar, Gwar, Cotton, Gram, Jawar, Bajra, Moong, Mustard, Sesame, Til, Maize, Sunflower, Jute, Coffee, etc. as well as Groundnut Shell, Coconut Shell, Castor Seed Shell etc.

In addition, pellets made from the following agro product/crop/waste can also be used for co-firing in TPPs viz Bamboo and its by-products, Horticulture waste such as dry leaves and trimmings obtained from maintenance & pruning of trees and plants and other biomass such as Pine Cone/Needle, Elephant Grass, Sarkanda, etc.

(d) & (e): Approximately 1,64,976 Metric Tonnes of agri residues-based biomass has been co-fired in 47 no. of coal based thermal power plants till May 2023. State-wise list of thermal power plants co-firing above biomass pellets is enclosed as Annexure.

## ANNEXURE REFERRED IN REPLY TO PARTS (d) & (e) OF UNSTARRED QUESTION NO.1270 ANSWERED IN THE LOK SABHA ON 27.07.2023

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#### Biomass usage status of different Power Plants for co-firing (Till 31.05.2023)

SI.	Organization/	Name of the Plant	State	Cumulative
No.	Power Utility			Biomass usage (MT)
1	NTPC	Simhadri Super Thermal Power Station, Visakhapatnam,	Andhra Pradesh	4551
2	NTPC	Kahalgaon Super Thermal Power Station, Bhagalpur,	Bihar	10
3	Jindal Power	Jindal Super Thermal Power Plant Tamnar	Chhattisgarh	24
4	Adani Power	Raipur Energen Limited	Chhattisgarh	77
5	DB Power Ltd	Badadarha TPP	Chhattisgarh	25
6	Adani Power	Raigarh Energy Generation Ltd.	Chhattisgarh	25
7	Vedanta Ltd	Bharat Aluminium Company Limited	Chhattisgarh	6942
8	NTPC	Lara Super Thermal Power Station, Raigarh,	Chhattisgarh	489
9	NTPC	Sipat Super Thermal Power Station, Bilaspur,	Chhattisgarh	3882
10	HPGCL	Rajiv Gandhi TPS, Hisar	Haryana	95
11	HPGCL	Yamuna Nagar TPS	Haryana	455
12	CLP/Apraava Energy	Mahatma Gandhi TPS, Jhajjar	Haryana	4410
13	NTPC JV	IGSTPP, Jhajjar	Haryana	16009
14	Tata Power	Jojobera Power Plant	Jharkhand	23
15	NTPC	Kudgi Super Thermal Power Station, Bijapur,	Karnataka	1912
16	JSW Energy Limited	JSW Energy - TPP Toranagallu	Karnataka	336
17	NTPC	Gadarwara Super Thermal Power Station, Narsinghpur,	Madhya Pradesh	3140
18	NTPC	Khargone Super Thermal Power Station, Khargone,	Madhya Pradesh	13417
19	Jaiprakash Power ventures	Jaypee Nigrie Super Thermal Power Plant, Sidhi	Madhya Pradesh	577
20	Jaiprakash Power ventures	Jaypee Bina TPS Madhya Pradesh	Madhya Pradesh	425
21	Reliance Power	Sasan Power Ltd, Madhya Pradesh	Madhya Pradesh	44
22	NTPC	Mauda Super Thermal Power Station, Nagpur,	Maharashtra	24167
23	NTPC	Solapur Super Thermal Power Station, Solapur,	Maharashtra	3060

24	Dhariwal infrastructure limited,	Dhariwal Thermal Power Plant Chandrapur	Maharashtra	87
25	GMR Group	GMR Warora Energy Limited	Maharashtra	20
26	JSW Energy Limited	JSW Energy – Ratnagiri Maharashtra	Maharashtra	5
27	Sai Wardha	Sai Wardha Power Generation Private Limited, Warora,	Maharashtra	10
28	Vedanta	Jharsuguda Captive Power	Orissa	44
29	GMR Energy	GMR Kamalganaga Orissa	Orissa	20
30	Vedanta	TSPL, Mansa,	Punjab	50
31	L&T	NPL, Rajpura,	Punjab	30
32	PSPCL	GGSSTP, Ropar	Punjab	61
33	PSPCL	GHTP, Lehra Mohabbat	Punjab	39
34	Adani Power	Adani Power Rajasthan Limited	Rajasthan	111
35	Shree Group	Shree Mega Power-1 &2	Rajasthan	7816
36	OPG Power	OPG Power Generation Pvt Ltd, Tamil Nadu	Tamil Nadu	715
37	UPRVUNL	Harduaganj TPS	Uttar Pradesh	7392
38	NTPC	National Capital Power Station, Dadri,	Uttar Pradesh	20617
39	NTPC	Tanda Thermal Power Station, Ambedkar Nagar,	Uttar Pradesh	3806
40	NTPC	Feroze Gandhi Unchahar Thermal Power Station, Raebareli,	Uttar Pradesh	9486
41	Hindalco Industries Ltd.	Mahan Al. Unit- CPP	Uttar Pradesh	29676
42	NTPC	Farakka Super Thermal Power Plant, Murshidabad,	West Bengal	77
43	CESC Limited	<b>Budge Budge Thermal Power Station</b>	West Bengal	181
44	Haldia Energy Ltd	Haldia Thermal Power Plant	West Bengal	90
45	DVC	Durgapur Steel Thermal Power Station (DSTPS)	West Bengal	501
46	WBPDCL	Bakreswar Thermal Power Station	West Bengal	22
47	WBPDCL	Sagardighi TPS	West Bengal	25
	Total			164976

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1272 ANSWERED ON 27.07.2023

#### SCHEMES FOR ELECTRIFICATION

1272. SHRI CHANDRA PRAKASH CHOUDHARY: SHRI NAYAB SINGH: SHRI GYANESHWAR PATIL:

Will the Minister of POWER be pleased to state:

- (a) whether the Integrated Power Development Scheme (IPDS) and Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) schemes are being implemented in the country particularly in Giridih Parliamentary Constituency of Jharkhand, Kurukshetra Parliamentary Constituency in Haryana and Khandwa Burhanpur Parliamentary Constituency of Madhya Pradesh;
- (b) if so, the scheme-wise details thereof along with updated status of implementation in the said Parliamentary Constituencies till date, block-wise; and
- (c) the details of the Central funds allocated/ utilised under each of these schemes since their inception to date, State/UT and year-wise?

#### ANSWER

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a): The Distribution Infrastructure works under Integrated Power Development Scheme (IPDS) and Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) schemes were started in the year 2014-15 and the works related to these Schemes have been completed in the Giridih Parliamentary Constituency of Jharkhand, Kurukshetra Parliamentary Constituency in Haryana and Khandwa-Burhanpur Parliamentary Constituency of Madhya Pradesh. These Schemes stand closed as on 31.03.2022.

....2.

(b): The details of works undertaken under DDUGJY in Giridih Parliamentary Constituency of Jharkhand, Kurukshetra Parliamentary Constituency in Haryana and Khandwa-Burhanpur Parliamentary Constituency of Madhya Pradesh are enclosed at Annexure-I.

The Distribution Infrastructure work under IPDS was sanctioned Circle wise by Monitoring Committee based on the DPR submitted by the Utility with recommendation of State level Distribution reforms committee. The circle wise status for implementation of IPDS scheme in Giridih, Kurukshetra & Khandwa-Burhanpur constituency is attached as Annexure-II.

(c): There was no upfront allocation of funds for any State/UT under IPDS and DDUGJY schemes. Funds were released for sanctioned projects in instalments based on the reported utilization of the funds released in the previous instalments and fulfilment of stipulated conditions. The details of funds disbursed under IPDS and DDUGJY State/UT wise and year wise is as enclosed at Annexure-III and Annexure-IV respectively.

## ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 1272 ANSWERED IN THE LOK SABHA ON 27.07.2023

			Physicals Infrastructure details											
		Constituency	Sub	station	DTR	Lines(CKm)			Feeder	Metering(Nos.)				
	Constituency	covering	New											
State	name	Districts	(Nos.)	Aug(Nos.)	DTR(Nos.)	LT	11kV	33/66	CKm	Consumer	Feeder			
	Kurukshetra	Kaithal	0	0	430	123.95	163.43	0	0	0	0			
HARYANA		Kurukshetra	0	0	309	57.53	49.14	0	0	2391	0			
		Bokaro	1	6	2854	1386.97	621.76	6.28	549.42	25800	36			
	Giridih	Dhanbad	4	4	2038	1217.79	256.15	42.29	132.46	19999	15			
JHARKHAND*		Giridih	5	8	4443	4025.28	1204.99	96.1	111.01	37491	114			
		Burhanpur	2	2	120	255.78	200.65	13	0	0	0			
	Khandwa-													
	Burhanpur	Dewas	7	21	519	1025.28	256.94	22.8	50.06	15631	94			
MADHYA		Khandwa	7	2	465	591.82	284	8	51.28	4718	0			
PRADESH		Khargone	5	12	1309	1558.16	717.39	19	87	296	0			

<sup>\*</sup> includes RE projects awarded after 2014

## ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO.1272 ANSWERED IN THE LOK SABHA ON 27.07.2023

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#### **IPDS Implementation in Giridih Parliamentary Constituency**

The work sanctioned in Giridih Parliamentary Constituency covered urban areas of Chas & Giridih Circle. The work has been declared complete and closed by the Utility.

Name Constitue	of ency	the	Name of the Circle	Date of Discom		Physical	completion	by
Giridih			Chas	28.02.2019				
			Giridih			31.07.2	019	

The major infrastructure work created under Giridih Parliamentary Constituency is as follows:-

Constituency	Circle	Particulars	Unit	Quantity commissioned
		33/11 KV Additional Power	Nos.	2
		Transformers		
		<b>New Distribution Transformers</b>	Nos.	103
		Capacity Enhancement of	Nos.	66
	Chas	Distribution Transformers		
	Cnas	HT Line (New	cKm	46
		&Reconductoring)		
		Aerial Bunched Cables	cKm	76
		UG Cables	cKm	1
		Solar Panels	KWp	5
		Particulars	Unit	Quantity
Giridih		Particulars	Onit	commissioned
		New Sub-stations	Nos.	2
		33/11 KV Additional	Nos.	
		Transformers		1
		<b>New Distribution Transformers</b>	Nos.	86
	Giridih	Capacity Enhancement of	Nos.	
		Distribution Transformers		22
		New HT Line		_
		(New/Reconductoring)	cKm	31
		Aerial Bunched Cables	cKm	80
		UG Cables	cKm	14
		Solar Panels	KWp	17

#### IPDS Implementation in Kurukshetra Parliamentary Constituency

The work sanctioned in Kurukshetra Parliamentary Constituency covered urban areas of Kaithal & Kurukshetra Circle. The work has been declared complete and closed by the Utility.

Name of Constituency	the	Name of the Circle	Date of Physical completion by Discom					
Kurukshetra		Kaithal	25.02.2019					
		Kurukshetra	01.03.2019					

## The major infrastructure work created under Kurukshetra Parliamentary Constituency is as follows:-

Constituency	Circle	Particulars	Unit	Completed Quantity
		New Distribution	Nos.	
		Transformers		44
		Capacity Enhancement of	Nos.	
	15 -41 1	Distribution Transformers		59
	Kaithal	HT line (New &		
		Reconductoring)	cKm	28
		Aerial Bunched Cables	cKm	21
		Solar Panels	KWp	55
Kurukshetra		Particulars	Unit	Completed Quantity
		New Distribution	Nos.	
		Transformers		22
	17	Capacity Enhancement of	Nos.	
	Kurukshetra	Distribution Transformers		18
		HT line (New &		
		Reconductoring)	cKm	20
		Aerial Bunched Cables	cKm	39
		UG Cables	cKm	11

#### IPDS Implementation in Khandwa Burhanpur Parliamentary Constituency

The work sanctioned in Khandwa-Burhanpur Parliamentary Constituency covered urban areas of Burhanpur & Khandwa Circle. The work has been declared complete and closed by the Utility.

Name	of	the	Name	of	the	Date of Physical completion by
Constitue	ency		Circle			Discom
Khandwa	Khandwa Burhanpur			pur		29.03.2019
			Khandv	va		28.01.2019

The major infrastructure work created under Khandwa Burhanpur Parliamentary Constituency is as follows:-

Constituency	Circle	Particulars	Unit	Quantity commissioned
		New Distribution Transformers	Nos.	43
		Capacity		
		Enhancement of		
		Distribution		
	D	Transformers	Nos.	4
	Burhanpur	New HT Line	cKm	5
		Aerial Bunched		
		Cables	cKm	17
		New LT Lines	cKm	1
		LT Line		
		Reconductoring	cKm	41
KhandwaBurhanpur		Particulars	Unit	Quantity commissioned
		New Distribution		
		Transformers	Nos.	39
		Capacity		
		Enhancement of		
		Distribution		
	Khandwa	Transformers	Nos.	13
		New HT Line	cKm	14
		Aerial Bunched		
		Cables	cKm	28
		LT Line		
		Reconductoring	cKm	5

## ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 1272 ANSWERED IN THE LOK SABHA ON 27.07.2023

#### Year wise, State wise sanction and disbursement details of IPDS Scheme

(Amount in Cr.)

		Approved	Gol	Financial Year -wise Gol Disbursement									
SI. No	State/ UT	Cost (Cumulative)	Component (Cumulative)	2014- 2015	2015- 2016	2016- 2017	2017- 2018	2018- 2019	2019- 2020	2020- 2021	2021- 2022	2022- 2023	(Total) Gol Grant Disb.
1	A&N Islands	18	11	-	-	-	1	-	-	2	7	-	11
2	AP	847	510	3	28	67	232	18	29	101	31	0.38	510
3	Arunachal	159	135	-	-	13	-	-	15	56	26	20	130
4	Assam	691	587	-	50	-	103	-	273	75	59	20	580
5	Bihar	2,710	1,631	2	13	321	20	18	624	315	311	1	1,624
6	Chhattisgarh	536	323	-	30	-	40	1	23	169	60	-	322
7	Delhi	179	108	-	-	-	-	33	-	57	18	-	108
8	Goa	83	50	-	-	-	2	0	11	13	17	-	44
9	Gujarat	1,066	642	5	24	175	130	120	112	84	-	-	650
10	Haryana	326	196	-	-	24	13	30	42	72	18	-	198
11	HP	178	151	-	-	9	2	21	60	18	39	0.22	149
12	J&K/ Ladakh	402	342	-	-	3	35	-	58	228	17	-	341
13	Jharkhand	768	462	-	-	44	89	160	-	75	88	-	455
14	Karnataka	1,329	800	-	-	69	130	350	49	91	110	0.17	798
15	Kerala	654	394	-	-	108	-	0	19	225	45	0.08	397
16	Maharashtra	2,387	1,436	-	-	197	160	81	740	110	116	26	1,431
17	Manipur	126	108	-	11	21	-	64	-	-	-	6	101
18	Meghalaya	108	92	-	-	5	-	9	1	29	11	-	55
19	Mizoram	105	89	-	-	12	-	3	5	5	57	-	82
20	MP	1,565	942	1	3	101	71	123	364	202	79	1	946
21	Nagaland	135	115	-		4	7	8	74	-	16	-	108
22	Odisha	1.056	636	-	-	183	-	247	128	22	60	-	640

23	Puducherry	15	9	-	-	-	-	4	-	5	-	-	9
24	Punjab	409	246	-	-	20	29	20	120	42	22	-	253
25	Rajasthan	1,431	861	-	-	130	99	-	417	96	98	1	841
26	Sikkim	101	86	-	-	-	1	9	15	-	67	1	94
27	Tamil Nadu	1,745	1,051	-	-	29	250	24	596	27	118	-	1,044
28	Telangana	751	452	-	-	39	70	223	11	56	52	0.02	452
29	Tripura	192	164	-	6	-	8	6	24	85	10	15	154
30	UP	5,358	3,226	25	62	631	635	1,008	111	303	274	73	3,121
31	Uttarakhand	612	521	-	-	16	33	87	73	224	75	0.47	508
32	West Bengal	2,839	1,709	14	51	112	319	45	607	422	81	20	1,672
	Total	28,880	18,084	50	277	2,333	2,479	2,713	4,600	3,210	1,981	186	17,828

## ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO.1272 ANSWERED IN THE LOK SABHA ON 27.07.2023

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## State-wise details of grant disbursed and utilized under DDUGJY (including RE & Additional infra & addl Households) since 2015

SI.	Name of the States	2015-	2016-	2017-	2018-	2019-	2020-	2021-	2022-	2023-24	Total
No		16	17	18	19	20	21	22	23	(as on	
										15.07.202	
										3)	
1	Andhra Pradesh	30	128	165	177	8	8	85			602
2	Arunachal Pradesh	31	101	81	160	37	32	74	76		592
3	Assam	338	598	408	1082	661	416	339	13		3,855
4	Bihar	710	1292	763	2412	682	830	1,236	46		7,970
5	Chhattisgarh	279	126	552	79	58	54	153			1,301
6	Gujarat	58	110	143	181	-	13	51			556
7	Haryana	-	-	45	22	50	5	54			176
8	<b>Himachal Pradesh</b>	28	-	-	15	40	37	11	11		142
9	J&K	-	-	57	527	65	35	29	136	20	870
10	Jharkhand	-	327	862	1362	610	355	281	189		3,985
11	Karnataka	44	145	204	451	283	13	109			1,249
12	Kerala	-	134	87	57	8	-	54			340
13	Ladakh	-	-	8	15	24	-	34	8		89
14	Madhya Pradesh	439	421	598	952	375	278	762	3		3,826
15	Maharashtra	43	257	143	482	225	158	162			1,470
16	Manipur	7	36	33	41	46	50	24	89		325
17	Meghalaya	-	26	58	155	165	61	15	32		510
18	Mizoram	19	14	42	35	16	5	24			154
19	Nagaland	48	21	24	55	24	11	8	43		234
20	Orissa	514	1079	366	1369	330	122	395		5	4,181
21	Punjab	-	-	15	42	115	16	35			223
22	Rajasthan	253	347	782	1246	273	116	408	89		3,514
23	Sikkim	-	-	18	21	9	28	16			92
24	Tamil Nadu	77	110	2	244	56	-	100			590
25	Telangana	5	27	60	61	74	-	64			292
26	Tripura	49	78	62	112	47	48	74	35		505
27	Uttar Pradesh	1249	2262	3149	3560	946	1,661	1,095	103		14,026
28	Uttarakhand	71	16	33	270	269	5	3			667
29	West Bengal	305	273	241	1281	261	149	509	50		3,069
30	Goa	-	-	-	3	7	-	2			12
31	D&N Haveli	-	-	-	1	-	-	2			3
32	Puducherry	-	1	-	0	5	3	1			11
33	Andaman Nicobar	-	-	1	-	-	2	3		4	11
	Total	4,599	7,930	9,002	16,469	5,767	4,511	6,212	921.50	29.22	55,441

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1273 ANSWERED ON 27.07.2023

#### **SAFETY OF NATIONAL POWER GRID**

#### 1273. SHRI SHANMUGA SUNDARAM K.:

Will the Minister of POWER be pleased to state:

- (a) the details of the functional operability of National Power Grid;
- (b) whether the Government has taken sufficient steps to protect the National Power Grid from Cyber attacks and if so, the details thereof;
- (c) if not, the reasons therefor;
- (d) the details of cyber attacks taken place on the National Power Grid, yearwise since 2014;
- (e) whether such entities involved in cyber attacks on the power grid are prosecuted and punished and if so, the details thereof; and
- (f) if not, the reasons therefor?

#### ANSWER

#### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

- (a): The Indian national power grid serves the Generators, Transmission, Distribution systems and the consumers of the electricity. The Indian grid is demarcated into 5 synchronously connected regional grids viz. Northern Region, Eastern Region, North Eastern Region, Southern Region and Western Region which also encompass the state grids in respective regions. The supervision of power grid and coordination with different utilities is being carried out by the National Load Despatch Centre (NLDC) and respective Regional Load Despatch Centres (RLDC) and State Load Despatch Centres (SLDC) as per their jurisdiction at various hierarchical level at national, regional and state.
- (b) & (c): Government of India has taken following steps to protect the National Power Grid from Cyber attacks:
  - Central Electricity Authority (CEA) has issued Guidelines for Cyber security in Power Sector in October 2021 leading to development and implementation of Cyber Security measures such as Cyber Crisis Management Plans, identification of Critical Information Infrastructures,

Information Security Management System (ISO 27001), Onboarding Cyber Swatchatta Kendra of Indian Computer Emergency Response Team (CERT-In) for monitoring open & vulnerable services and botnet infections, vulnerability assessment of critical installations through CERT-In empaneled auditors, skill enhancement of workforce through level 1& 2 training conducted by National Power Training Institute (NPTI).

- A Computer Security Incident Response Team for Power sector (CSIRT-Power) under guidance of CERT-In has been setup at CEA, to coordinate and support the response to cyber security incidents and hand-hold utilities for preventing, detecting, handling, and responding to cyber security incidents. CSIRT-Power provides expert guidance to mitigate and prevent cyber incidents to protect Critical Information Infrastructure assets and enhance cyber resilience.
- As Computer Emergency Response Team of Grid Operations, Grid-India, apart from taking care of cyber security of RLDC(s) and NLDC control centres, also coordinates with SLDCs for taking care of cyber security of their respective control centre by them.
- The IT (Information Technology) and OT (Operation Technology) systems of NLDC/RLDCs under GRID-INDIA has been designed considering necessary controls to mitigate the cyber threats and associated cyber security devices have been installed for prevention of cyber-attacks.
- The coordination with the statutory bodies and compliance to the directives thereof are ensured by GRID-INDIA on regular basis.
- Establishment of Security Operations Center (SOC) and on boarding with Cyber Swachhta Kendra (CSK): GRID-INDIA has established a 24x7 Security Operations Center.
- Employee awareness sessions are being conducted frequently to sensitize employees about cyber security.
- Mandatory Cyber Security Certification through NPTI have been introduced for IT /OT and cyber security personnel of GRID-INDIA
- (d): As informed by POWERGIRD and GRID-INDIA, there has been no Cyber attack on their systems since 2014.
- (e) & (f): Does not arise in view of (d) above.

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1274 ANSWERED ON 27.07.2023

#### **HYDRO ELECTRIC GENERATION**

#### 1274. PROF. SOUGATA RAY:

Will the Minister of POWER be pleased to state:

- (a) whether the Government has conducted any study on future of hydro electric generation in the country;
- (b) if so, the details thereof;
- (c) whether the frequent natural calamities like, flood are causing concerns on the ongoing construction of hydro power projects; and
- (d) if so, the details thereof?

#### ANSWER

### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

- (a) & (b): Yes, Sir. The Government, in 2013, had constituted a Committee under Central Electricity Authority (CEA) with members from Central Water Commission (CWC), Geological Survey of India (GSI), Survey of India (SoI), National Remote Sensing Agency (NRSA), Ministry of Environment, Forest & Climate Change (MoEF&CC) for finalizing the Terms of Reference (ToR) regarding basin-wise reassessment of hydroelectric potential in the country. The reassessment study was carried out by CEA during the period 2017-23. As per the study, the assessed hydropower potential from major / medium schemes (i.e. schemes having capacity above 25 MW) is about 133.4 GW. The state wise details are enclosed at Annexure.
- (c) & (d): The hydro projects are mainly located in the hilly terrains, where the incidence of natural calamities like floods sometimes cause damage to the temporary structures like coffer dam, protection wall, etc. and thereby delay the project(s). Also, due to floods, the roads / bridges may get damaged, which further delay the supply of materials to the project sites and affects its commissioning schedule.

## ANNEXURE REFERRED IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO.1274 ANSWERED IN THE LOK SABHA ON 27.07.2023

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## State-wise Potential of Large Hydro Power (In terms of Installed capacity - Above 25 MW)

( In terms of Installed capacity - Above 25 MW)  Identified Potential (M							
Region/ State	(2017-23)						
NORTHERN	(2011 20)						
Jammu & Kashmir	12265						
Ladakh	707						
Himachal Pradesh	18305						
Punjab	1301						
Haryana	0						
Rajasthan	411						
	13481						
Uttar Pradesh	502						
Sub Total (NR)	46971						
WESTERN							
Madhya Pradesh	2819						
Chhattisgarh	1311						
Gujarat	550						
Maharashtra	3144						
Goa	0						
Sub total (WR)	7824						
SOUTHERN							
Andhra Pradesh	2596						
Telangana	1302						
Karnataka	4414						
Kerala	2473						
Tamil Nadu	1785						
Sub Total (SR)	12570						
EASTERN							
Jharkhand	300						
Bihar	130						
Odisha	2825						
West Bengal	809						
Sikkim	6051						
Sub Total (ER)	10115						
NORTH EASTERN							
Meghalaya	2026						
Tripura	0						
Manipur	615						
Assam	643						
Nagaland	325						
Arunachal Pradesh	50394						
Mizoram	1927						
Sub Total (NER)	55930						
ALL INDIA	133410						

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1291 ANSWERED ON 27.07.2023

#### **24X7 POWER TO ALL**

#### 1291. SHRI JANARDAN SINGH SIGRIWAL:

Will the Minister of POWER be pleased to state:

- (a) whether the Government is implementing any scheme to supply 24X7 power to all in the country;
- (b) if so, the details and present status thereof;
- (c) the target set and achievements made so far in this regard; and
- (d) the measures being taken by the Government to strengthen the Integrated Power Development Scheme (IPDS) to supply 24X7 power to all?

#### ANSWER

### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (c): Electricity is a concurrent subject and supply/distribution of electricity to all consumers of urban and rural areas falls primarily under the purview of the respective State Governments and/or State Power Utilities. Government of India supplements the efforts of the States through its various schemes including Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS) and Revamped Distribution Sector Scheme (RDSS) to help them achieve the objective of providing uninterrupted power supply to all consumers.

All the States and the Union Territories (UTs) have signed MoUs with the Central Government to ensure 24x7 power supply w.e.f. 1st April,2019 onwards. Many States and UTs claim to supply 24x7 power other than the planned outages and interruptions due to unforeseen events. In this regard, Government of India vide notification dated 31.12.2020 had also notified the Electricity (Rights of Consumers) Rules, 2020 which inter-alia mandate 24x7 power supply to all consumers by the distribution licensee. The details of State-wise Average hours of Power supply in rural and urban areas of the Country are as per Annexure-I.

.....2.

(d): Integrated Power Development Scheme (IPDS) was launched in December, 2014 for Strengthening of sub-transmission and distribution networks in urban areas; Metering of distribution transformers/ feeders/ consumers in the urban areas; IT enablement works; Enterprise Resource Planning (ERP); Smart metering; Gas insulated Sub-stations (GIS); and Real Time Data Acquisition System (RT-DAS). Under the Scheme, Central funding was provided for the implementation of these works. Besides the aforesaid works, funds were also sanctioned by the Government for underground (UG) cabling and Aerial Bunched (AB) cables which helped in the reduction of Aggregate Technical & Commercial (AT&C) losses. All these distribution infrastructure works has supplemented the efforts of the Government to ensure 24x7 power to all. The scheme stands closed as on 31.03.2022. The details of infrastructure created under IPDS are as per Annexure-II.

## ANNEXURE REFERRED IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO.1291 ANSWERED IN THE LOK SABHA ON 27.07.2023

				_		r Supply in ders upto N	a Day (HH.hh larch 2023	ı) for			
	State Name	2018-19		2019-20		2020-21		2021-22		2022-23	
		Rural Supply	Urban Supply	Rural Supply	Urban Supply	Rural Supply	Urban Supply	Rural Supply	Urban Supply	Rural Supply	Urban Supply
1	Andhra Pradesh	22.12	23.97	23.63	23.92	23.57	23.93	23.58	23.89	23.51	23.88
2	Arunachal Pradesh#						22.78		22.73		
3	Assam#		23.73		23.80		23.32		23.67		23.59
4	Bihar	21.22		21.85	23.13	21.90	23.41	20.34	23.55	20.10	23.40
5	Chhattisgarh		23.77		23.98	21.33	23.87	21.25	23.82	21.59	23.83
6	Delhi*								24.00		24.00
7	Goa				22.75		23.75		23.78		23.82
8	Gujarat	23.78	23.95	23.12	23.95	23.56	23.96	23.50	23.96	23.83	23.97
9	Haryana	19.62	23.28	19.23	23.27	17.12	23.62	16.26	23.63	19.40	23.63
10	Himachal Pradesh	15.82		15.65	23.85	14.27	23.87	13.27	23.90	12.85	23.90
11	Jammu and Kashmir#						21.54		22.28		22.50
12	Karnataka	17.63	23.93	17.22	23.83	17.55	23.75	17.56	23.59	19.05	23.82
13	Kerala	21.22		21.97	23.98	21.00	23.93	19.62	23.93		23.95
14	Madhya Pradesh	23.33	23.70	23.03	23.85	19.62	23.94	19.35	23.88	20.66	23.60
15	Maharashtra		23.95	20.45	23.97	20.80	23.95	23.17	23.99	23.85	23.99
16	Meghalaya#		23.95		23.98		23.90		23.93		23.93
17	Manipur#						23.55		23.65		
18	Mizoram#		23.73		23.67		23.57		23.87		
19	Nagaland#				23.50		23.48		23.45		
20	Odisha	20.13		20.02	23.65	21.03	23.67	23.22	23.65		24.00
21	Puducherry	22.10		20.45		20.30		20.30			
22	Punjab	23.27	23.78	23.17	23.72	21.33	23.50	22.12	23.68		23.68
23	Rajasthan	21.30	23.92	21.30	23.88	20.58	23.91	21.29	23.89	21.42	23.86
24	Tamil Nadu	20.77		20.97	23.97	21.95	23.98	22.15	23.98		23.96

25	Telangana	22.05		22.22	23.92	22.00	23.92	21.94	23.93	21.79	23.91
26	Tripura	19.68		19.55		19.57	23.92	19.93	23.90	19.66	23.89
27	Uttar Pradesh	19.10	23.15	17.03	23.57	16.28	23.47	15.99	23.42	16.15	23.54
28	Uttarakhand	21.40	23.47	21.67	23.40	21.95	23.68	21.57	23.62	21.39	23.57
29	West Bengal	18.18	23.97	23.07	23.97	22.97	23.77	23.48	23.82	23.33	23.85
	ALL INDIA TOTAL	20.7	23.8	20.8	23.7	20.5	23.8	20.5	23.8	20.6	23.8

Note 1: # Only Urban data is Available. Also, the States shown with blank space indicates that data is not available

Note2: States/UTs not present in the list are not mapped on NPP

Note3: \* Delhi has been on boarded on NPP in April 2021. So data for previous FYs is not available on NPP

### ANNEXURE REFERRED IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 1291 ANSWERED IN THE LOK SABHA ON 27.07.2023

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#### Physical Progress for system strengthening works under IPDS is as under:

SI.	Particulars	Units	Quantity			
No.			Awarded	Achieved	% Achieved	
1	33/11 KV Substation New	Nos	994	994	100%	
2	33/11 KV Substation Augmentation	Nos	1610	1609	99%	
3	HT Lines	CKms	23494	23474	99%	
4	LT Lines	CKms	10428	10410	99%	
5	Aerial Bunch	CKms	64275	64242	99%	
6	UG Cables	CKms	22220	21981	98%	
7	Distribution Transformers	Nos	60000	59992	99%	
8	<b>Smart Meters</b>	Nos	156441	156441	100%	
9	Prepaid Meters	Nos	119916	119916	100%	
10	Consumer Meters	Nos	8578812	8576100	99%	
11	Feeder Meters	Nos	7807	7797	100%	
12	DT Meters	Nos	103939	103722	99%	
13	<b>Boundary Meters</b>	Nos	3593	3590	99%	
14	Solar Panels	KWp	46298	46151	99%	

In addition to the above, smart meters for 6 Utilities of Ujwal DISCOM Assurance Yojana (UDAY) participating states have also been sanctioned under IPDS. A total of 6,54,016 smart meters have been installed.

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1292 ANSWERED ON 27.07.2023

#### **WORKING CAPITAL AND FUEL TO STATE POWER PLANTS**

#### 1292. SHRI G.M. SIDDESHWAR:

Will the Minister of POWER be pleased to state:

- (a) whether many State power plants are stressed power plants and require working capital to buy coal and start generating power in the country;
- (b) if so, the details thereof;
- (c) whether such power plants would be offered short term loans from Power Finance Corporation and REC Ltd.;
- (d) If so, the details thereof;
- (e) the number of State power plants whose generating capacity has been reduced due to shortage of supply of coal and action taken by the Government to provide fuel; and
- (f) whether the power plants are generating power at their full capacity to meet energy demand and if so, the details thereof?

#### ANSWER

#### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (c): There has been significant improvement in realization of dues of Generating Companies post implementation of Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 promulgated on 3rd June, 2022. The total outstanding dues of States towards Generating Companies reported on PRAAPTI Portal which were at Rs. 1,20,540 Cr. as on 03.06.2022 have been reduced to Rs. 61,025 Cr. as on 24.07.2023 with timely payment of twelve (12) Equated Monthly Installments (EMIs). Distribution companies are also paying their current dues in time to avoid regulations under the rule. However, some State Gencos have sought working capital assistance from PFC and REC for procurement of coal pending realization of their dues.

(d): Various state utilities are approaching Rural Electrification Corporation Limited (REC) to sanction the loans. REC has provided loan assistance to various utilities for procurement of coal. The details are at Annexure-I.

Also, Power Finance Corporation Ltd. (PFC) has a policy in place which prescribes sanction of short term loans to state power plants requiring working capital to buy coal subject to compliance of Additional Prudential Norms prescribed by Ministry of Power. During FY 2022-23 and FY 2023-24, PFC had sanctioned loans to various State Sector Gencos for procurement of coal. The details are at Annexure-II.

(e): As on 31.03.2023, the coal stock available at 180 Domestic coal based (DCB) plants was 34.6 Million Ton (MT), while on 17.7.2023, it was 33.4 MT which is sufficient to run these plants for an average of 13 days at 85% Plant Load Factor (PLF). Further, the coal stock at 57 State Sector Plants as on 17.07.2023 is 9.6 MT, which is sufficient to run these plants for an average of 10 days at 85% PLF. So, there is no shortage of coal in State Sector Plants. However, coal stock at the plant end varies as per gap between consumption and receipt of coal.

Government has taken following steps to ensure smooth coal supply to power plants for unhindered power generation:-

- I. To address the issues of coal supplies to power sector, an Inter-Ministerial Sub Group comprising of representatives from Ministries of Power, Ministry of Coal, Ministry of Railways, Central Electricity Authority (CEA), Coal India Limited (CIL) and Singareni Collieries Company Limited (SCCL) meet regularly to take various operational decisions to enhance supply of coal to thermal power plants as well as for meeting any contingent situations relating to Power Sector including to alleviate critical coal stock position in power plants.
- II. An inter-ministerial Secretary-level meeting is held regularly to monitor coal stocks.
- III. Government has issued revised coal stocking norms, which mandates the power plants to maintain sufficient stock at all times to meet any contingent situation.
- IV. Power Utilities have been importing coal considering their requirement as well as cost-economics. Ministry of Power vide order dated 09.01.2023 directed Central/State Gencos and IPPs to take necessary actions to import coal for blending where necessary through a transparent competitive procurement so as to have sufficient stock at their power plants for smooth operations till September, 2023.

- V. As per Railways, during 2022-23, the net induction of coal carrying wagons was about 8800 (about 150 rakes). During 2023-24, the likely net induction of coal carrying rakes would be about 200 rakes, which could provide additional 50 rakes/day for coal loading. The expected increase in annual coal transportation capacity on account of wagon induction would be about 70 Million Tonnes (MT). Similarly, likely net induction of coal carrying rakes in 2024-25 is about 250 rakes, which could provide additional 60 rakes/day. The expected increase in annual coal transportation capacity on account of wagon induction would be about 85 MT.
- VI. Railways have identified 40 number of project for augmentation of coal evacuation. Out of 40 projects, 17 number of projects have already been completed and 23 projects are in progress. Out of 23 projects, it is expected that about 18 projects would be completed by 2026-27.
- VII. According to Railways, likely increase in coal transportation capacity during 2023-24 and 2024-25 is about 185 MT.
- VIII. To ensure sufficient coal, Captive Coal Mine Production target for Financial Year 2023-24 is kept at 141 Million Tonnes in comparison to 102.69 MT for previous FY 2022-23.
  - (f): The Plant Load Factor (PLF) of Coal/Lignite based power plants of capacity 25 Mega Watt (MW) and above during the year 2022-23 was 64.15%. In 2023-24, the demand for electricity has increased and power plants are generating the electricity as per schedule given to them. The PLF for Coal/Lignite based power plants in FY 2023-24 (up to June 2023) is around 70.02%.

#### **ANNEXURE-I**

## ANNEXURE REFERRED IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 1292 ANSWERED IN THE LOK SABHA ON 27.07.2023

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### **Loans Sanctioned by REC for procurement of Coal**

SI. No.	State	Utility	Loan Sanctioned (Rs. Cr.)	Loan Disbursed (Rs. Cr.)
1.	Maharashtra	Maharashtra State Power Generation Company Limited (MSPGCL)	1800	1800
2.	Rajasthan	Rajasthan Rajya Vidyut Utpadan Nigam Limited (RRVUNL)	1500	1000
3.	Punjab	Punjab State Power Corporation Limited (PSPCL)	400	400
4.	Haryana	Haryana Power Generation Corporation Limited (HPGCL)	1000	810
5.	Karnataka	Karnataka Power Corporation Limited (KPCL)	2500	2000
6.	West Bengal	West Bengal Power Development Corporation Ltd. (WBPDCL)	3612.5	812.5
7.	West Bengal	Durgapur Projects Limited (DPL)	300	300
		Total	11112.5	7122.5

#### **ANNEXURE-II**

## ANNEXURE REFERRED IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 1292 ANSWERED IN THE LOK SABHA ON 27.07.2023

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### **Loans Sanctioned by PFC for procurement of coal**

SI. No.	State	Utility	Loan Sanctioned (Rs. Cr.)	Loan Disbursed (Rs. Cr.)
8.	Maharashtra	Maharashtra State Power Generation Company Limited (MSPGCL)	2749	2749
9.	Rajasthan	Rajasthan Rajya Vidyut Utpadan Nigam Limited (RRVUNL)	500	500
10.	Punjab	Punjab State Power Corporation Limited (PSPCL)	400	400
11.	Haryana	Haryana Power Generation Corporation Limited (HPGCL)	1000	500
12.	Karnataka	Karnataka Power Corporation Limited (KPCL)	1500	1500
13.	West Bengal	West Bengal Power Development Corporation Ltd. (WBPDCL)	563	200
	1	Total	6712	5849

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1300 ANSWERED ON 27.07.2023

#### DISTRIBUTION OF GOLD COINS BY DVC

#### 1300. SHRI SUSHIL KUMAR SINGH:

Will the Minister of POWER be pleased to state:

- (a) whether Damodar Valley Corporation (DVC) has distributed Gold Coins (10 gms/24 carat) to all its employees on its 75th Foundation Day costing more than Rs. 36.00 crores and if so, the details thereof;
- (b) whether the DVC management took the approval of Department of Expenditure, MoF in view of ban on such expenditure circulated vide Office Memorandum No. F.No. 7(2)/(E)Coord./2020 dated 4th September, 2020 for purchase of Gold Coins for distribution among its employees;
- (c) if so, the details thereof and whether the Ministry would initiate any inquiry and further action in the matter;
- (d) whether the Gold Coins purchased were not Hallmarked as per the IS 1417:2016 and the specifications mentioned in the Purchase Order of DVC; and
- (e) whether DVC took an undertaking from the employees that the Gold Coin received by them is 10gms/24 carat and if so, the details thereof?

#### ANSWER

### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a): To commemorate the 75<sup>th</sup> year of its inception, DVC Board took the decision to distribute gold coins to all employees who were on the roll of the Corporation as on 07-07-2022, as a token of acknowledgement of their services rendered to the organisation and also to motivate them to rededicate for further growth and development of the organisation.

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-	-	-	-	•	-	-	=	=	_	Ŀ

- (b) & (c): For distribution of above gold coins (10 gm /24 carat), due approval was taken from the DVC Board in the 657<sup>th</sup> meeting held on 20.05.2022. DoE OM dated 4<sup>th</sup> September 2020 is on economy and rationalization of non priority expenditure while protecting and preserving priority expenditure. The 75<sup>th</sup> Foundation Day of DVC was a rare event in the history of DVC.
- (d): The gold coins were procured from Government Mint, Kolkata and were of 999 fineness (24 Carat), as per the approved specifications. Government Mint, Kolkata had certified that the "gold coins supplied to Damodar Valley Corporation against Purchase Order no. CP/SECT-HQ/GOLDCOIN/2022-23/553012 dated 26.09.2022 by India Government Mint, Kolkata have positive tolerance both with respect to weight and purity."
- (e): Gold coins, notified as 999 fineness (24 Carat), were distributed to every eligible employee of DVC by taking acknowledgement receipt from each such employee.

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1313 ANSWERED ON 27.07.2023

### IMPLEMENTATION OF GRAM UJALA SCHEME

#### **†1313. SHRI SUKHBIR SINGH JAUNAPURIA:**

Will the Minister of POWER be pleased to state:

- (a) whether the Government has implemented Gram Ujala Scheme and if so, the details thereof;
- (b) the names of districts identified in Rajasthan to include in the first phase of this scheme;
- (c) the steps taken by the Government to create awareness among the beneficiaries about the said scheme;
- (d) the time by which the said scheme is likely to be implemented by the Government; and
- (e) the number of villages and hamlets (dhanies) in Tonk and Sawai Madhopur districts of Rajasthan which have been included under the said scheme?

#### ANSWER

#### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (e): Gram Ujala Scheme has been implemented by Convergence Energy Services Limited (CESL). Under Gram Ujala Scheme, more than 1 crore LED bulbs have been distributed in rural areas of Bihar, Uttar Pradesh, Andhra Pradesh, Karnataka and Telangana as a Pilot Project. The details of LED bulbs distribution in the above States is as per table below:-

Sr. No.	State	LED bulbs Distributed
1.	Uttar Pradesh	46,34,219
2.	Bihar	37,62,058
3.	Andhra Pradesh	5,59,030
4.	Telangana	5,67,380
5.	Karnataka	4,77,335
	Total	1,00,00,022

The Gram Ujala Scheme has not been implemented in the State of Rajasthan. Various awareness activities are being done by CESL/authorized agencies for the usage of LED bulbs amongst beneficiaries such as – local/national media outreach, information dissemination through TV/Radio and other modes of media like banners, posters, leaflets etc. The distribution under the pilot of Gram Ujala has been completed and currently, no further distribution activity is underway.

## GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1321 ANSWERED ON 27.07.2023

#### **DUES PENDING WITH DISCOMS**

#### 1321. SHRI JAGDAMBIKA PAL:

Will the Minister of POWER be pleased to state:

- (a) whether the financial dues with Discoms or State owned power distributors have reduced during the last three years and if so, the details thereof;
- (b) the details of the approximate dues pending with Discoms till June 2023, State-wise;
- (c) the steps taken by the Government to reduce the dues with the Discoms; and
- (d) the details of the five States which have highest dues with Discoms?

#### ANSWER

#### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a): With the implementation of Electricity (LPS and Related Matters) Rules, 2022, remarkable improvement has been seen in recovery of outstanding dues of Suppliers including Generating and Transmission Companies. The total outstanding dues of States which were at Rs. 1,39,747 Cr. as on 03.06.2022 have been reduced to Rs. 69,957 Cr. with timely payment of twelve (12) EMIs. Distribution companies are also paying their current dues in time to avoid regulations under the rule.

#### As per PRAAPTI portal, Genco dues trend over last 3 years are as below:

Year	Genco Dues (Rs. Cr.)
Balance Legacy Genco Dues, as on April, 2021	83,161
Balance Legacy Genco Dues, as on April, 2022	1,03,725
Balance Legacy Genco Dues, as on	1,20,540
03.06.2022 (Date of implementation of	(Rs. 1,39,747 Cr. including dues
LPS Rules)	of Transcos and Traders)
Palance Lorenz Conce Duce on on	61,025
Balance Legacy Genco Dues, as on	(Rs. 69,957 Cr. including dues of
24.07.2023 after payment for 12 EMI	Transcos and Traders)

.....2.

(b): As per the information available on PRAAPTI portal, the total dues of Power Distribution Companies (DISCOMs) towards suppliers as on 30.06.2023 were as under:-

	Summary of Dues of DISCOMs to be paid to Supplier*					
SI. No.	Particular	Rs in crore				
1	Balance Legacy Dues, as on 30.06.2023 after payment for 11 EMI	75,535				
2	Current dues as on 30.06.2023 (As per PRAAPTI Portal)	44,386				

<sup>\*</sup>Suppliers means Generation Companies, Transmission Companies & Traders

The State/UT-wise details are at Annexure.

(c): Recognizing the cash flow problems arising out of outstanding receivables of Generating Companies from DISCOMs and in order to increase basic payment discipline in the power sector value chain, sustenance of which has been a matter of concern due to increasing receivables to Gencos, recently, Government of India promulgated Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 on 3<sup>rd</sup> June, 2022. These rules entail obligations upon the DISCOMs to clear their legacy dues as existing on 03.06.2022 in a time bound phased manner in equated monthly installments with benefits of non applicability of late payment surcharge after 03.06.2022. These rules also provide framework for time bound clearance of current dues through establishment of a Payment Security Mechanism and disincentives of progressive withdrawal of access as well as power regulations if the provisions of the Rules are not followed. DISCOMs can avail loans from PFC Ltd. and REC Ltd. to clear their dues to Generating Companies.

Under the Revamped Distribution Sector Scheme (RDSS) launched by Government of India, compliance to LPS Rules by Discoms has been prescribed under the Result Evaluation Framework for evaluating the DISCOMs for availing financial assistance under the scheme.

Further, Ministry of Power, has introduced Additional Prudential Norms for sanctioning of working capital loans to State DISCOMs/ TRANSCOs/ GENCOs. These essentially entail that loans to DISCOMs and other State owned utilities would be contingent to their performance against prescribed conditions. The prudential norms, among other conditions, include compliance to LPS Rules by Discoms. The Ministry of Power has also requested all other FIs/ Banks to adopt and implement the Revised Additional Prudential Norms for working capital loan to DISCOMS/ TRANSCOs/ GENCOs.

(d): Details of top five States, which have highest dues with DISCOMs as on 24.07.2023 are as under:

SI. No.	Sates	Balance legacy dues after 12th EMI (In Rs. Crore)	Current Dues (In Rs. Crore)
1	Tamil Nadu	12,560	5,118
2	Maharashtra	12,595	2,713
3	Karnataka	9,655	2,365
4	Rajasthan	8,452	1,711
5	Jammu and Kashmir	6,376	426

## ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 1321 ANSWERED IN THE LOK SABHA ON 27.07.2023

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SI. No.	States	Balance legacy dues as on 30.06.2023 after 11th EMI (Rs. Cr)	Current dues as on 30.06.2023 (Rs. Cr)
1	Maharashtra	12,989	19,890
2	Tamil Nadu	12,925	5,969
3	Karnataka	9,920	1,992
4	Rajasthan	9,219	1,944
5	Uttar Pradesh	4,903	2,892
6	Jammu And Kashmir	6,869	181
7	Telangana	4,315	2,364
8	Madhya Pradesh	6,164	492
9	Andhra Pradesh	1,975	1,583
10	Jharkhand	3,144	233
11	Chhattisgarh	3,018	174
12	Punjab	-	2,152
13	Gujarat	-	1,690
14	Delhi	-	614
15	Bihar	80	467
16	Odisha	-	527
17	Haryana	-	394
18	West Bengal	-	163
19	Tripura	-	151
20	Kerala	-	129
21	Himachal Pradesh	-	91
22	Dnh&Dd	-	90
23	Manipur	14	57
24	Meghalaya	-	35
25	Mizoram	-	30
26	Assam	-	27
27	Chandigarh	-	19
28	Uttarakhand	-	16
29	Nagaland	-	8
30	Puducherry	-	7
31	Sikkim	-	5
	Total	75,535	44,386

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# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1348 ANSWERED ON 27.07.2023

#### **DDUGJY SCHEME**

#### **1348. SHRI SAUMITRA KHAN:**

Will the Minister of POWER be pleased to state:

- (a) the date on which Saubhagya Yojana and Deen Dayal Gram Jyoti Yojana (DDGJY) has started electrification in the country and the details of the selection process followed thereunder;
- (b) whether any criteria have been fixed for the beneficiaries under the said schemes and if so, the details thereof;
- (c) the number of eligible persons benefited across the country since the inception of the said schemes upto March, 2023, year and State/UT-wise, especially in West Bengal; and
- (d) the details of the number of electricity connections provided to beneficiaries under the said schemes in West Bengal from 2020 to 2022 along with the total funds utilised and the amount of subsidy provided thereunder, district and year-wise?

#### ANSWER

### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) & (b): The Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) was launched in December, 2014 by the Government of India for strengthening the distribution systems including separation of agriculture and non-agriculture feeders, strengthening and augmentation of sub-transmission & distribution infrastructure, metering of distribution transformers/feeders/consumers electrification of villages across the country, access to electricity to rural households and providing free electricity connection to BPL households.

Subsequently, Government of India launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana – SAUBHAGYA in October, 2017 with the objective of achieving universal household electrification by providing electricity connections to all unelectrified households in the country.

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Under SAUBHAGYA, electricity connection was provided free of cost to all un-electrified poor households, whereas for non-poor rural households, an amount of Rs.500 was to be recovered by the DISCOMs/Power Departments from the beneficiary in ten equal installments in their subsequent electricity bills.

- (c): The details of BPL households electrified from FY 2015-16 and till September, 2017 under DDUGJY State-wise (including West Bengal) are furnished at Annexure-I. Further, the details of households electrified since the launch of SAUBHAGYA in October, 2017 including additional households sanctioned under DDUGJY till 31.03.2022 State-wise (including West Bengal) are furnished at Annexure-II. Both these Schemes stand closed as on 31.03.2022.
- (d): The State of West Bengal had reported 100% electrification of all willing un-electrified households under SAUBHAGYA by 31.03.2019. As per SAUBHAGYA portal, a total of 7,32,290 Nos. households were electrified in the State.

There was no upfront allocation of funds for any State/District under DDUGJY & Saubhagya scheme. Funds were released for sanctioned projects in installments based on the reported utilization of the funds released in the previous installments and fulfillment of stipulated conditions. The details of grant released under Saubhagya and DDUGJY (including RE and additional infra) respectively from FY 2020 to 2022 to West Bengal State is as follows:

(Rs. in Crore)

Scheme	FY 2020-21	FY 2021-22	Total
DDUGJY	149	509	658
Saubhagya	16	46	62

## ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 1348 ANSWERED IN THE LOK SABHA ON 27.07.2023

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State wi	State wise Achievement of total BPL Households electrified from FY 2015 till September 2017 under DDUGJY		
SI. No.	State	Total BPL Households electrified	
1.	Andhra Pradesh	664851	
2.	Assam	101537	
3.	Bihar	1976832	
4.	Chhattisgarh	63756	
5.	Gujarat	813	
6.	Jammu &Kashmir	1133	
7.	Jharkhand	12391	
8.	Karnataka	98821	
9.	Kerala	24993	
10.	Madhya Pradesh	561262	
11.	Maharashtra	59	
12.	Meghalaya	95	
13.	Mizoram	447	
14.	Nagaland	507	
15.	Odisha	103857	
16.	Rajasthan	149854	
17.	Sikkim	1850	
18.	Tamil Nadu	1976	
19.	Telangana	849	
20.	Tripura	41759	
21.	Uttar Pradesh	1082986	
22.	Uttarakhand	46	
23.	West Bengal	34450	
	Total	4925124	

#### **ANNEXURE-II**

## ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 1348 ANSWERED IN THE LOK SABHA ON 27.07.2023

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## State-wise electrification of households since launch of Saubhagya Scheme including Additional Households achievement under DDUGJY

e.	Name of the States	No of Households electrified from 11.10.2017 to 31.03.2019 as per Saubhagya Portal	Additional Sanction allowed under Saubhagya		Further Additional Households sanctioned under DDUGJY	GI
SI. No.			No of Households reported electrified from 01.04.2019 to 31.03.2021	Total HHs electrified as on 31.03.2021(A)	Households electrified (as on 31.03.2022) (B)	Grand Total(A+B)
1	Andhra Pradesh*	181,930	0	181,930		181,930
2	Arunachal Pradesh	47,089	0	47,089	0	47,089
3	Assam	1,745,149	200,000	1,945,149	381507	2,326,656
4	Bihar	3,259,041	0	3,259,041		3,259,041
5	Chhattisgarh	749,397	40,394	789,791	2577	792,368
6	Gujarat*	41,317	0	41,317		41,317
7	Haryana	54,681	0	54,681		54,681
8	Himachal Pradesh	12,891	0	12,891		12,891
9	Jammu & Kashmir	377,045	0	377,045		377,045
10	Jharkhand	1,530,708	200,000	1,730,708		1,730,708
11	Karnataka	356,974	26,824	383,798		383,798
12	Ladakh	10,456	0	10,456		10,456
13	Madhya Pradesh	1,984,264	0	1,984,264	0	1,984,264
14	Maharashtra	1,517,922	0	1,517,922		1,517,922
15	Manipur	102,748	5,367	108,115	0	108,115

16	Meghalaya	199,839	0	199,839	401	200,240
17	Mizoram	27,970	0	27,970		27,970
18	Nagaland	132,507	0	132,507	7009	139,516
19	Odisha	2,452,444	0	2,452,444		2,452,444
20	Puducherry*	912	0	912		912
21	Punjab	3,477	0	3,477		3,477
22	Rajasthan	1,862,736	212,786	2,075,522	52206	2,127,728
23	Sikkim	14,900	0	14,900		14,900
24	Tamil Nadu*	2,170	0	2,170		2,170
25	Telangana	515,084	0	515,084		515,084
26	Tripura	139,090	0	139,090		139,090
27	Uttar Pradesh	7,980,568	1,200,003	9,180,571	0	9,180,571
28	Uttarakhand	248,751	0	248,751		248,751
29	West Bengal	732,290	0	732,290		732,290
	Total	26,284,350	1,885,374	28,169,724	443,700	28,613,424

<sup>\*</sup>Electrified prior to Saubhagya and not funded under Saubhagya

# GOVERNMENT OF INDIA MINISTRY OF POWER LOK SABHA UNSTARRED QUESTION NO.1365 ANSWERED ON 27.07.2023

#### SHORTAGE OF ELECTRICITY

#### †1365. SHRI HAJI FAZLUR REHMAN:

Will the Minister of POWER be pleased to state:

- (a) whether there is a shortage of electricity in the country due to its increased consumption;
- (b) if so, the details thereof, State-wise; and
- (c) the details of steps taken/proposed to be taken by the Government to increase the per capita consumption of electricity?

#### ANSWER

#### THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

#### (SHRI R.K. SINGH)

- (a) & (b): There is adequate availability of electricity in the country. There is a negligible gap between Energy Requirement and Energy Supplied on account of factors attributable to DISCOMs such as constraints in distribution network, financial constraints, commercial reasons etc. The details of actual All India Power Supply Position for the last three years and the current year (up-to June, 2023), are given at Annexure.
- (c): The following steps have been taken to increase the per capita consumption of electricity:
- (i) Government of India had launched the Pradhan Mantri Sahaj Bijli Har Ghar Yojana SAUBHAGYA in October, 2017 with the objective to achieve universal household electrification for providing electricity connections to all willing un-electrified households in rural areas and all willing poor households in urban areas in the country.

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- (ii) The Government of India has launched "Revamped Distribution Sector Scheme (RDSS) a Reforms based and Results linked Scheme" on 20th July 2021 with the objective of improving the quality and reliability of power supply to consumers through a financially sustainable and operationally efficient distribution sector. The scheme will be implemented for a duration of five years from 2021-22 to 2025-26.
- (iii) Further, Government of India has implemented schemes like Integrated Power Development Scheme (IPDS) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) to achieve the objective of providing uninterrupted power supply to the consumers by strengthening the subtransmission and distribution systems.
- (iv) The Ministry of Power has taken initiative to promote the adoption of Electric Vehicles over Internal Combustion Engines and use of Electric Cooking by households. To create awareness among masses, "GO Electric" campaign was launched. These two initiatives have contributed in enhancing awareness about benefits of e-mobility and Electric cooking and are expected to promote use of electricity for transport and cooking in the country.

## ANNEXURE REFERRED IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO.1365 ANSWERED IN THE LOK SABHA ON 27.07.2023

The details of actual All India Power Supply Position for the last three years and the current year (upto June, 2023):

	Energy [Million Units (MU)]					
Year	Energy Requirement	Energy Supplied	Energy not Supplied			
	(MU)	(MU)	(MU)	(%)		
2020-21	1,275,534	1,270,663	4,871	0.4		
2021-22	1,379,812	1,374,024	5,787	0.4		
2022-23	1,511,847	1,504,264	7,583	0.5		
2023-24 (upto June, 2023)*	4,08,621	4,07,762	858	0.2		

(\*)-Provisional