GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
STARRED QUESTION NO.307
ANSWERED ON 10.08.2023

UP-GRADATION OF THERMAL AND HYDRO POWER PLANTS

***307. SHRI RAMESH CHAND BIND:**

Will the Minister of POWER
be pleased to state:

(a) whether the Government proposes for up-gradation of thermal and hydro power plants in the country;

(b) if so, the details thereof;

(c) whether the Government has estimated total cost for up-gradation of thermal and hydro power plants; and

(d) if so, the details thereof?

A N S W E R

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.

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STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) IN RESPECT OF LOK SABHA STARRED QUESTION NO.307 FOR REPLY ON 10.08.2023 REGARDING UP-GRADATION OF THERMAL AND HYDRO POWER PLANTS ASKED BY SHRI RAMESH CHAND BIND.

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(a) & (b) : The Central Electricity Authority, Ministry of Power issued R&M guidelines in February, 2020 to promote Renovation & Modernisation (R&M)/Life extension (LE) works in Coal Based Thermal units. The Ministry constituted a High level committee on 16.03.2022 to study the various aspects of R&M/LE works in coal based thermal power plants and circulated revised R&M guidelines on 01.08.2023 for better implementation of R&M/LE/Up-gradation in coal based thermal units.

Central Electricity Authority (CEA) vide an advisory dated 20.01.2023 suggested that rather than retiring the plants advised for implementation of R&M/LE for running the plants up to 2030 and beyond and getting plants ready to operate in two shift mode to facilitate solar and wind energy integration into the grid, if found feasible.

R&M/LE Works have been completed in 8 numbers of Thermal Power units having total capacity of 1197 MW during 2017-22 in both State and Central Sector. 148 number of coal based thermal units having capacity of 38150 MW in Central, State and Private Sector have been identified for R&M/LE Works upto June, 2033.

However, it is pertinent to mention that generation is a delicensed activity as per Section 7 of the Electricity Act, 2003 and final decision of carrying out R&M/LE in coal based thermal units is taken by power generating companies based on their own techno-economic viability and environmental reasons.

In case of Hydro power plants, CEA has prepared and published "Guidelines for Renovation & Modernisation of Hydro Power Stations" in July, 2020 which provides assistance to hydropower utilities in planning, identification of R&M works, preparation of DPR, tendering and implementation of works.

.....2.

R&M/LE have been completed in 35 number of Hydro units aggregating to 2049.4 MW in Central and State Sector during 2017-22. 241 number of Hydro units having capacity of 12183.1 MW in Central, State and Private Sector have been identified for R&M/LE Works for 2022-27.

(c) & (d) : The estimated cost for R&M/LE works varies from unit to unit and depends on various factors like efficiency improvement, safety requirements, obsolescence of equipment/components, unforeseen failures, fatigue and compliance of environmental norms on the basis of Residual Life Assessment (RLA) / Condition Assessment (CA)/Destructive test studies and Energy Audit studies.

In case of hydro projects, estimated cost for R&M works depends on following:

i) Power Potential Study

ii) Electro-Mechanical Aspects

iii) Cost estimate of Civil and E&M works

iv) IDC (Interest During Construction)

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3456
ANSWERED ON 10.08.2023

PRODUCTION AND AVAILABILITY OF COAL

3456. SHRI ABHISHEK BANERJEE:

Will the Minister of POWER be pleased to state:

(a) the percentage of total generation of electricity currently accounted for by Coal; and

(b) the steps being taken to ensure production and adequate availability of coal for the same?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : The Percentage generation accounted from coal is as given below:

Year	Total Generation (MU)	Generation from Coal (MU)	Percentage Generation from Coal
2023-24 (upto June)	437848.64	315384.29	72.06 %
2022-23	1624465.61	1145907.58	70.54 %

(b) : 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.

.....2.

II. An inter-ministerial Secretary-level meeting is held regularly to monitor coal stocks.

III. 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.

IV. 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.

V. According to Railways, likely increase in coal transportation capacity during 2023-24 and 2024-25 is about 185 MT.

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3489
ANSWERED ON 10.08.2023

REVAMPED DISTRIBUTION SECTOR SCHEME

3489. SHRI JAYADEV GALLA:
SHRI RAM MOHAN NAIDU KINJARAPU:

Will the Minister of POWER
be pleased to state:

(a) the details of the trends of Average Technical and Commercial loss at pan India level since the inception of Revamped Distribution Sector Scheme (RDSS), State and year-wise;

(b) the details of the agricultural feeders solarized under the scheme, State-wise;

(c) the proportion of the population covered with smart meters under the scheme, State-wise;

(d) the increase in average revenue generated per smart meter per month in Andhra Pradesh as compared to average revenue per month from traditional meters;

(e) the details of the pre-qualifying criteria and minimum benchmarks for financial assistance for the distribution infrastructure works component under the said scheme; and

(f) the details of the performance of DISCOMs in Andhra Pradesh as per the given criteria for financial assistance for the Distribution Infrastructure Works component under the scheme for the year 2022-23?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : Government of India launched Revamped Distribution Sector Scheme (RDSS) in July, 2021 which aims to reduce the Aggregate Technical and Commercial (AT&C) losses to pan-India levels of 12-15% and ACS-ARR gap to zero by 2024-25. As per the 'Report on Performance of Power Utilities' published annually by Power Finance Corporation Ltd. (PFC), AT&C losses for distribution utilities, since the inception of Revamped Distribution Sector Scheme (RDSS), i.e. from FY 2020-21 to FY 2021-22 is as under:

	2020-21	2021-22
AT&C Loss (%)	22.32	16.44

.....2.

State/UT-wise and year-wise details of AT&C Losses are placed at Annexure-I.

(b) : Under RDSS, financial assistance would be provided for segregation of agriculture feeders from mixed feeders where agriculture load is more than 30%. Thereafter, States/ DISCOMs would be solarizing these segregated feeders under various other schemes like PM KUSUM. States/DISCOMs are in the process of tendering and award of sanctioned works of segregation of agricultural feeders under RDSS.

(c) : State-wise details of smart meters sanctioned under RDSS are placed at Annexure-II.

(d) : Under RDSS, smart metering works sanctioned for various DISCOMs of Andhra Pradesh are as under:

DISCOMs	Sanctioned Consumer Smart Meters (Nos.)		Awarded (Nos.)
	Phase-I	Phase-II	
APEPDCL	9,31,649	3,23,591	9,31,649
APSPDCL	19,71,134	3,31,510	19,71,134
APCPDCL	13,03,483	7,47,479	13,03,486
AP Total	42,06,266	14,02,580	42,06,269

The DISCOMs are in the process of award and tendering of the sanctioned works and installation of smart meters in the State of Andhra Pradesh is yet to commence.

(e) : RDSS envisages a Results Evaluation Framework (REF), incorporating performance against result parameters and trajectories for improvement. The REF has two components (i) Pre-qualifying criteria; and (ii) Result Evaluation Matrix, the details of which are enclosed as Annexure-III and Annexure-IV, respectively.

Utilities clearing the pre-qualifying criteria would be eligible for evaluation against the result evaluation matrix, which would determine their eligibility for release of funds for a particular year. The result evaluation framework would be different for each DISCOM and would be fixed for each year depending on the cumulative performance as well as the annual performance.

The funds for a particular year will be released only if the Utility clears the pre-qualifying criteria and the total weighted score is more than 60 marks on the evaluation matrix.

(f) : As per RDSS guidelines, evaluation of parameters relating to financial accounts shall be based on audited annual accounts. Therefore, annual evaluation of DISCOMs in Andhra Pradesh for FY 2022-23 would be undertaken after the publishing of audited annual accounts by the DISCOMs. The evaluation of DISCOMs of Andhra Pradesh has already been undertaken for FY2021-22 and all DISCOMs have qualified for obtaining financial assistance under RDSS, as per Scheme Guidelines.

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ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3489 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State/UT-wise details of AT&C loss %

	AT&C Loss in %	
State/DISCOMs	**FY 2020-21**	**FY 2021-22**
Andaman & Nicobar	**51.94**	**-**
Andhra Pradesh	**27.25**	**10.55**
Arunachal Pradesh	**44.87**	**48.89**
Assam	**18.73**	**16.95**
Bihar	**35.33**	**32.42**
Chandigarh	**11.89**	**13.31**
Chhattisgarh	**20.40**	**18.13**
Dadra & Nagar Haveli	**5.17**	**3.50**
Daman & Diu	**4.48**	**4.45**
Delhi	**8.87**	**8.12**
Goa	**12.94**	**13.28**
Gujarat	**11.35**	**10.13**
Haryana	**17.05**	**13.72**
Himachal Pradesh	**14.02**	**12.90**
Jammu & Kashmir	**59.28**	**-**
Jharkhand	**41.36**	**33.79**
Karnataka	**16.26**	**11.45**
Kerala	**7.76**	**7.69**
Lakshadweep	**11.63**	**-**
Madhya Pradesh	**41.47**	**22.55**
Maharashtra	**25.54**	**15.25**
Manipur	**20.33**	**23.62**
Meghalaya	**30.88**	**36.15**
Mizoram	**36.53**	**38.99**
Nagaland	**60.39**	**41.28**
Odisha	**29.32**	**31.26**
Puducherry	**19.92**	**11.08**
Punjab	**18.03**	**11.67**
Rajasthan	**26.23**	**17.49**
Sikkim	**29.37**	**30.77**
Tamil Nadu	**13.81**	**13.46**
Telangana	**13.33**	**10.65**
Tripura	**37.36**	**33.25**
Uttar Pradesh	**27.12**	**30.52**
Uttarakhand	**15.39**	**14.15**
West Bengal	**19.54**	**16.67**
Grand Total	**22.32**	**16.44**

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ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 3489 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State/UT-wise details of Smart Meters sanctioned under RDSS

State	Consumer Meters (Nos.)	DT Meters Total (Nos.)	Feeder meters Total (Nos.)
Andaman & Nicobar Islands	83,573	1,148	114
Andhra Pradesh	56,08,846	2,93,140	17,358
Arunachal Pradesh	2,87,446	10,116	688
Assam	63,64,798	77,547	2,782
Bihar	23,50,000	2,50,726	6,427
Chhattisgarh	59,62,115	2,10,644	6,720
Delhi	-	766	2,755
Goa	741,160	8,369	827
Gujarat	1,64,81,871	3,00,487	5,229
Haryana	74,05,618	1,95,319	13,204
Himachal Pradesh	28,00,945	39,012	1,951
Jammu & Kashmir	14,07,045	88,037	2,608
Jharkhand	13,41,306	19,512	1,226
Kerala	1,32,89,361	87,615	6,025
Ladakh	-	-	-
Madhya Pradesh	1,29,80,102	4,06,503	8,411
Maharashtra	2,35,64,747	4,10,905	29,214
Manipur	1,54,400	11,451	357
Meghalaya	4,60,000	11,419	1,324
Mizoram	2,89,383	2,300	398
Nagaland	3,17,210	6,276	392
Puducherry	4,03,767	3,105	180
Punjab	87,84,807	1,84,044	12,563
Rajasthan	1,42,74,956	4,34,608	27,128
Sikkim	1,44,680	3,229	633
Tamil Nadu	3,00,00,000	4,72,500	18,274
Tripura	5,47,489	14,908	473
Uttar Pradesh	2,69,79,056	15,26,801	20,874
Uttarakhand	15,84,205	38,016	1,686
West Bengal	2,07,17,969	3,05,419	11,874
Grand Total	20,53,26,855	54,13,922	2,01,695

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ANNEXURE-III

ANNEXURE REFERRED IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 3489 ANSWERED IN THE LOK SABHA ON 10.08.2023

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Pre-qualifying Criteria to be mandatorily met by DISCOM for Further Evaluation under Revamped Distribution Sector Scheme

(i) DISCOMs would publish quarterly un-audited accounts within 60 days of the end of each quarter during first two years of operation of the scheme (i.e. for FY 2021-22 and FY 2022-23) and thereafter audited quarterly accounts within 45 days from 3rd year onwards.

(ii) Further, DISCOMs would publish audited annual accounts by end of December of the following year during first two years of operation of the scheme (i.e. for FY 2021-22 and FY 2022-23) and thereafter audited annual accounts by end of September of the following year from 3rd year onwards.

(iii) DISCOMs will have ensured that no new Regulatory Assets have been created in latest tariff determination cycle.

(iv) State Government to ensure 100% payment of subsidy for the previous year and advance payment of subsidy up to current period in line with section 65 of EA2003 and wipe out the remaining subsidy amount by the end of the project period.

(v) All Government Departments/ Attached Offices/ Local Bodies/ Autonomous Bodies/Boards/Corporations have made 100% payment of current electricity dues for the year under evaluation.

(vi) Progress commensurate to commitment in putting Govt. Offices on prepaid meters.

(vii) No. of days Payables to Creditors including Gencos for the year under evaluation is equal to or less than the projected trajectory as per results evaluation framework.

(viii) Tariff order for the current year in which evaluation is being done and true up of penultimate year has been issued and implemented w.e.f. 1st April of current FY.

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ANNEXURE-IV

ANNEXURE REFERRED IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 3489 ANSWERED IN THE LOK SABHA ON 10.08.2023

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Summary of Results Evaluation matrix for evaluation of DISCOM performance under Revamped Distribution Sector Scheme

Sr. No.	Category	Weightage for Evaluation
1.	Financial Sustainability	60
2.	Outcome of infrastructure Works	20
3.	Infrastructure Works	10
4.	Policy & Structural Reforms, Capacity Building and IT/OT Enablement	10
	Total	100

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3495
ANSWERED ON 10.08.2023

CONSERVATION OF ELECTRICITY

†3495. SHRI DILESHWAR KAMAIT:

Will the Minister of POWER
be pleased to state:

(a) whether the Government has conducted any energy audit during the last three years;

(b) if so, the details and the outcome thereof, year and State-wise;

(c) whether there is any mechanism to ensure energy efficiency practices in agriculture and commercial sectors of the country and if so, the details thereof; and

(d) the details of the initiatives/steps taken/proposed to be taken by the Government to conserve electricity in the country?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) & (b) : Bureau of Energy Efficiency, under Ministry of Power, GoI has conducted the Baseline Energy Audit in 492 nos. of industries in the 10 energy intensive sectors namely Iron & Steel, Textile, Petrochemical Manufacturing Units, Pulp & Paper, Railways, Cement, Sugar, DISCOMs and Chlor-Alkali under the PAT Scheme, during the last three years.

Total 349 nos. of industries have been notified so far in 10 energy intensive sectors namely Iron & Steel, Textile, Pulp & Paper, Railways, Cement, DISCOMs, Building, Petroleum Refinery, Thermal Power Plant and Chlor-Alkali under the PAT Scheme as the outcomes of baseline energy audit exercise. Specific energy reduction targets have been assigned to these industries to reduce their baseline energy consumption.

The state wise list of industries covered under PAT Scheme in respective sectors, during last three years is attached as Annexure.

(c) &(d): The Government of India has implemented various schemes that help in reducing the electricity consumption, such as Perform, Achieve and Trade (PAT) Scheme, Standard & Labeling (S&L) Programme, Unnat Jyoti by Affordable LEDs for All (UJALA), Street Lighting National Programme (SLNP), Gram Ujala Programme, Building Energy Efficiency, Agriculture and Municipal Demand Side Management.

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ANNEXURE

ANNEXURE REFERRED IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 3495 ANSWERED IN THE LOK SABHA ON 10.08.2023

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List of Notified DCs (Scheme Outcomes)													
Sl. No.	State	Iron & Steel	Cement	Pulp & Paper	Textile	DISCOM	Petrochemical Manufacturing Unit#	Sugar#	Chlor-Alkali	Railway	Refinery	Thermal PP	Building
1	Tamil Nadu	1	0	0	3	0	0	26	0	2	0	0	6
2	Andhra Pradesh	5	3	0	2	1	0	0	0	0	0	0	1
3	Uttar Pradesh	0	6	6	0	1	0	56	0	2	0	0	5
4	Maharashtra	2	3	0	0	7	6	50	0	0	0	0	7
5	Karnataka	18	4	1	3	2	0	52	0	1	0	1	8
6	Uttar Pradesh	0	6	0	0	1	1	0	0	0	0	0	0
7	Haryana	0	5	0	0	0	1	0	0	0	0	0	3
8	Rajasthan	0	5	0	9	0	1	0	0	0	0	0	2
9	Gujarat	4	1	1	8	8	15	0	1	0	0	0	3
10	West Bengal	17	11	0	0	3	1	0	0	1	0	0	7
11	Uttarakhand	0	1	1	0	0	0	0	0	0	0	0	0
12	Kerala	0	0	0	0	7	1	0	0	0	0	0	4
13	Chhattisgarh	24	0	0	0	2	0	0	0	0	0	0	0
14	Jharkhand	8	2	0	0	1	0	0	0	0	0	0	0
15	Dadar Nagar	0	0	0	11	1	2	0	0	0	0	0	0
16	Daman Diu	0	0	0	0	1	0	0	0	0	0	0	0
17	Delhi	0	0	0	0	2	0	0	0	0	0	0	6
18	Chandigarh	0	0	0	0	1	0	0	0	0	0	0	0
19	Mizoram	0	0	0	0	1	0	0	0	0	0	0	0
20	Manipur	0	0	0	0	1	0	0	0	0	0	0	0
21	Meghalaya	0	2	0	0	1	0	0	0	0	0	0	0
22	Arunachal Pradesh	0	0	0	0	1	0	0	0	0	0	0	0
23	Jammu	0	0	0	0	1	0	0	0	0	0	0	0
24	Ladakh	0	0	0	0	1	0	0	0	0	0	0	0
25	Kashmir	0	0	0	0	1	0	0	0	0	0	0	0
26	Pondicherry	0	0	0	0	1	0	0	0	0	0	0	0
27	Telangana	0	1	0	3	1	0	0	0	0	0	0	6
28	A&N Island	0	0	0	0	1	0	0	0	0	0	0	0
29	Lakshadweep	0	0	0	0	1	0	0	0	0	0	0	0
30	Tripura	0	0	0	0	1	0	0	0	0	0	0	0
31	Sikkim	0	0	0	0	1	0	0	0	0	0	0	0
32	Nagaland	0	0	0	0	1	0	0	0	0	0	0	0
33	Punjab	0	1	0	0	0	0	0	0	2	0	0	0
34	Bihar	0	3	0	0	0	0	0	0	2	0	0	0
35	Odisha	28	4	0	0	0	0	0	0	0	1	0	0
36	Himachal Pradesh	0	2	0	0	0	0	0	0	0	0	0	0
37	Madhya Pradesh	0	2	0	0	0	0	0	0	0	0	0	0
38	Assam	0	2	0	0	0	0	0	0	0	1	0	0
39	Goa	0	0	0	0	0	0	0	0	0	0	0	6
	Total	107	64	9	39	52	0	0	1	10	2	1	64

 # Yet to be notified.

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3508
ANSWERED ON 10.08.2023

DEMAND AND SUPPLY OF POWER

†3508. SHRI MALOOK NAGAR:

Will the Minister of POWER be pleased to state:

(a) whether the demand of power has been decreasing in different parts of the country during the last one year;

(b) if so, the details of demand and supply of power during the last two years; and

(c) the reasons for the decrease in demand of power in the country?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (c) : No, Sir. The demand of power has increased in different parts of the country during the year 2022-23 as compared to the previous year 2021-22. The details of the Power Supply Position in various regions of the country during 2021-22 and 2022-23 is given at Annexure.

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ANNEXURE

ANNEXURE REFERRED IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 3508 ANSWERED IN THE LOK SABHA ON 10.08.2023

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The details of the Power Supply Position in term of Energy Requirement in various regions of the country

(Figures in MU net)

Region	April,2022 - March,2023		April,2021 - March,2022		% Change	
	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied
	(MU)	(MU)	(MU)	(MU)	(%)	(%)
Northern Region	463,088	458,640	417,934	413,915	10.8	10.8
Western Region	475,743	475,157	429,065	428,683	10.9	10.8
Southern Region	371,467	370,900	350,678	350,421	5.9	5.8
Eastern Region	182,791	180,888	164,054	162,973	11.4	11
North-Eastern Region	18,758	18,680	18,079	18,033	3.8	3.6
All India	1,511,847	1,504,264	1,379,812	1,374,024	9.6	9.5

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3510
ANSWERED ON 10.08.2023

DEVELOPMENT OF ELECTRICITY MARKET

3510. SHRI GAUTAM GAMBHIR:

Will the Minister of POWER be pleased to state:

(a) whether the Government is working on any roadmap or strategy to outline interventions for the short, medium and long term goals for the development of the electricity market; and

(b) if so, the details thereof?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) & (b) : Yes, Sir. Government constituted a Group for "Development of Electricity Market in India" in July, 2022. The Terms of Reference of the Group are attached at Annexure.

The Group has proposed comprehensive solutions to address key issues and recommended a phase-wise implementation of various interventions for transforming the electricity market in India.

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ANNEXURE

ANNEXURE REFERRED IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 3510 ANSWERED IN THE LOK SABHA ON 10.08.2023

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The Terms of Reference of the Group on "Development of Electricity Market in India" are:

i. **To study the present system of power sale and purchase under the Power Purchase Agreements, including under power trading and other modes of transactions.**

ii. **To study the system of power markets, including use of Power Purchase Agreements globally.**

iii. **To make recommendations for changing the structure and system of power purchase and sale in the country, including reforms needed in the system of Power Purchase Agreements, to encourage investments, efficiency, and competitiveness in the power markets.**

iv. **To examine the feasibility of converting existing long term PPAs into market mechanisms.**

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3512
ANSWERED ON 10.08.2023

RDSS TO HELP DISCOMs

3512. DR. T. SUMATHY (a) THAMIZHACHI THANGAPANDIAN:

Will the Minister of POWER
be pleased to state:

(a) whether the Government has approved the Revamped Distribution Sector Scheme (RDSS) to help DISCOMs to improve their operational efficiencies and financial sustainability with an outlay of Rs. 3,03,758 crore over 5 years i.e. FY 2021-22 to FY 2025-26;

(b) if so, the main objectives of the said scheme and details of the breakup of funds for States and UTs in the country;

(c) whether the REC and PFC have been nominated as nodal agencies for facilitating the implementation of the scheme and if so, the details thereof;

(d) the funds allocated under the Liquidity Infusion Scheme (Aatmanirbhar Bharat Abhiyan) to Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO); and

(e) the total financial assistance provided by REC Ltd. to TANGEDCO and the steps taken by the Government to provide more support to power related projects being developed in Tamil Nadu both by TANGEDCO as well as Private players?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

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

- **(i) The scheme has an outlay of Rs.3,03,758 crore and estimated GBS from Central Government of Rs.97,631 crore.**
- **(ii) The scheme aims to reduce the AT&C losses to pan-India levels of 12-15% and ACS-ARR gap to zero by 2024-25.**
- **(iii) The scheme has a duration of 5 years (FY 2021-22 to FY 2025-26). Sunset date of scheme will be 31.03.2026.**

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(iv) The Scheme has two major components: Part 'A' – Financial support for Prepaid Smart Metering & System Metering and upgradation of the Distribution Infrastructure and Part 'B' – Training & Capacity Building and other Enabling & Supporting Activities.

(v) The release of funds under the scheme has been linked to Results and Reforms. The pre-qualifying criteria need to be mandatorily met with by the DISCOMs before they can be evaluated for release of funds under the scheme.

(vi) State/UT-wise details of works sanctioned under RDSS are at Annexure-I.

(c) : REC Limited and Power Finance Corporation Limited (PFC) have been appointed as the Nodal Agencies for the scheme and have been made responsible for facilitating the implementation of the scheme in the entire country.

The details of allocation for States/ UTs between the Nodal agencies are at Annexure-II.

(d) : Details of loan sanctioned and disbursed till now under the Liquidity Infusion Scheme (Aatmanirbhar Bharat Abhiyan) by PFC and REC to TANGEDCO are as under:

FII's	Sanctioned amount	Disbursed		Total
		Tranche-1 Release	Tranche-2 Release	
REC	17,830.30	8,699.14	8,358.77	17,057.91
PFC	12,400.00	6001.36	3,736.04	9,737.40
Total	30,230.30	14,700.49	12,094.82	26,795.31

(e) : The details of total financial assistance provided by REC ltd. to TANGEDCO and details of grant disbursed under various schemes of Government of India to TANGEDCO is placed at Annexure-III.

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ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 3512 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State/UT-wise details of funds sanctioned under RDSS

Sl. No.	State/Discoms	Sanctioned cost for Smart metering works (Rs. Cr.)	Sanctioned Cost of Loss Reduction works (Rs. Cr.)	Sanctioned GBS of Metering Works (Rs. Cr.)	Sanctioned GBS Loss Reduction Works (Rs. Cr.)
1	Andaman & Nicobar Islands	53.56	462.01	12.25	415.81
2	Andhra Pradesh	4,127.85	9,276.66	815.40	5,566.00
3	Arunachal Pradesh	183.56	799.99	54.40	719.99
4	Assam	4,049.54	2,609.10	1,051.65	2,348.19
5	Bihar	2,021.21	7,081.06	412.33	4,248.63
6	Chattisgarh	4,105.31	3,597.55	804.43	2,158.53
7	Delhi	13.38	323.63	2.03	194.18
8	Goa	469.17	247.08	94.51	148.25
9	Gujarat	10,641.96	6,021.48	1,884.60	3,612.89
10	Haryana	4,966.62	3,158.43	909.36	1,895.06
11	Himachal Pradesh	1,788.49	1,774.90	466.23	1,597.41
12	Jammu & Kashmir	1,063.62	4,635.57	272.02	4,172.01
13	Jharkhand	858.02	3,262.27	190.50	1,957.36
14	Kerala	8,231.21	2,346.81	1,413.34	1,408.09
15	Ladakh	-	697.36		627.62
16	Madhya Pradesh	8,768.98	9,403.43	1,482.10	5,642.06
17	Maharashtra	15,214.95	14,157.92	2,839.61	8,494.75
18	Manipur	121.16	400.98	38.14	360.88
19	Meghalaya	309.56	796.49	86.35	716.84
20	Mizoram	181.61	237.33	61.08	213.59
21	Nagaland	207.57	391.18	59.66	352.06
22	Puducherry	251.10	84.39	56.25	50.63
23	Punjab	5,768.50	3,873.37	959.80	2,324.02
24	Rajasthan	9,714.80	9,371.41	1,685.96	5,622.85
25	Sikkim	97.45	263.61	30.43	237.25
26	Tamil Nadu	19,235.36	9,066.27	3,398.45	5,439.76
27	Tripura	318.55	484.56	80.42	436.10
28	Uttar Pradesh	18,956.29	17,089.62	3,500.57	10,253.77
29	Uttarakhand	1,050.92	1,447.39	297.47	1,302.65
30	West Bengal	12,670.45	7,222.57	2,089.18	4,333.54
	Grand Total	1,35,440.72	1,20,584.40	25,048.55	76,850.78

GBS: Government Budgetary Support

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ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 3512 ANSWERED IN THE LOK SABHA ON 10.08.2023

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Allocation of States between Nodal agencies

States and UTs allocated to PFC

1. Maharashtra
2. Gujarat
3. Andhra Pradesh
4. Telangana
5. Kerala
6. Madhya Pradesh
7. Uttarakhand
8. Odisha
9. Jharkhand
10. Punjab
11. Haryana
12. Himachal Pradesh
13. Chandigarh
14. Delhi
15. Puducherry
16. Lakshadweep

States and UTs allocated to REC

1. Assam
2. Meghalaya
3. Arunachal Pradesh
4. Chhattisgarh
5. J&K
6. Ladakh
7. Goa
8. Tamil Nadu
9. Karnataka
10. Bihar
11. Rajasthan
12. Uttar Pradesh
13. West Bengal
14. Andaman Nicobar
15. Sikkim
16. Mizoram
17. Manipur
18. Nagaland
19. Tripura

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ANNEXURE-III

ANNEXURE REFERRED IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 3512 ANSWERED IN THE LOK SABHA ON 10.08.2023

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(i). Financial assistance (loan) sanctioned by REC to TANGEDCO (from 23.09.2008 to 30.06.2023) is as follows:

Categories	Sanction (Rs. cr)	Released (Rs. cr)	Outstanding (Rs. cr)
Distribution Projects	9,112.07	6,095.61	4,664.12
Generation Projects	24,068.56	21,779.18	15,767.16
Large Hydro Projects > 25 MW	1,450.00	1,142.64	1,128.31
Other than Large Hydro Projects	324.66	201.68	199.75
Revolving Bill Payment Facility (RBPF)	6000.00	4,950.57	4,950.57
Special Long Term Transitional Loan (SLTTL)	17830.30	17,059.52	17,057.91
Total	58,785.59	51,229.19	43,767.82

(ii) Financial assistance (Grant from Government of India) to TANGEDCo:

(a) Under various schemes:

Schemes	Outlay sanctioned (Rs. Cr.)	GBS sanctioned (Rs. Cr.)	GBS released (Rs. Cr.)
DDUGJY	1,344	919	885
IPDS	1,745	1,051	1,044

(b) RDSS:

	Outlay sanctioned (Rs. Cr.)	GBS sanctioned (Rs. Cr.)	GBS released till date as per the scheme guidelines (Rs. Cr.)
Loss Reduction Works	9,066	5,440	267.97
Smart Metering Works	19,235	3,398	0

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3528
ANSWERED ON 10.08.2023

RURAL ELECTRIFICATION

3528. SHRI DUSHYANT SINGH:
SHRI ASHOK KUMAR RAWAT:

Will the Minister of POWER
be pleased to state:

(a) the details of the villages being electrified under the rural electrification scheme in each district of Rajasthan and in Sitapur, Hardoi and Kanpur Nagar under Misrikh Parliamentary Constituency of Uttar Pradesh; and

(b) the status of the work being done under the Integrated Power Development Scheme (IPDS) in Rajasthan particularly in Jhalawar and Baran districts?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : The 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/UTs, 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 across the country including 425 villages in the State of Rajasthan and 1 village in Misrikh parliamentary constituency of Uttar Pradesh. The Scheme stands closed as on 31.03.2022. District-wise details of village electrification in the State of Rajasthan and in the Misrikh parliamentary constituency of Uttar Pradesh is as per Annexure-I(A) and Annexure-I(B) respectively.

(b) : Ministry of Power, Government of India had launched Integrated Power Development Scheme (IPDS) on December, 2014 to extend the financial assistance against capital expenditure to address the gaps in sub transmission and distribution network and metering in urban areas to supplement the resources of DISCOMs/Power Departments. The works under IPDS in the Baran and Jhalawar circles were declared complete and closed by the Utility within the sunset timeline. The scheme stands closed as on 31.03.2022. The status for implementation of IPDS scheme in Baran and Jhalwar Circle of Jaipur DISCOM is attached as Annexure-II.

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ANNEXURE-I(A)

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3528 ANSWERED IN THE LOK SABHA ON 10.08.2023

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District wise electrification details of inhabited census villages during DDUGJY from FY 2015-16 till 28.04.2018 as per GARV in Rajasthan State		
Sl. No.	**District**	**Number of villages electrified**
1	Ganganagar	4
2	Hanumangarh	5
3	Bikaner	21
4	Churu	3
5	Alwar	8
6	Bharatpur	3
7	Dhaulpur	9
8	Karauli	8
9	Sawai Madhopur	3
10	Dausa	1
11	Sikar	1
12	Nagaur	1
13	Jodhpur	43
14	Jaisalmer	113
15	Barmer	34
16	Sirohi	1
17	Pali	11
18	Bundi	1
19	Bhilwara	2
20	Dungarpur	6
21	Banswara	2
22	Chittaurgarh	3
23	Baran	27
24	Jhalawar	1
25	Udaipur	94
26	Pratapgarh	20
	Total	425

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ANNEXURE-I(B)

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3528 ANSWERED IN THE LOK SABHA ON 10.08.2023

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District wise electrification details of inhabited census villages during DDUGJY from FY 2015-16 till 28.04.2018 as per GARV in Misrikh constituency of Uttar Pradesh State.		
S. No	**District**	**Number of villages electrified**
1	**Sitapur**	**1**
2	**Hardoi**	**0**
3	**Kanpur Nagar**	**0**

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ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 3528 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State	Discom	Name of the Circle	Date of Physical completion by Discom
Rajasthan	JaVVNL	Baran	28.02.2019
		Jhalawar	29.01.2019

The major infrastructure created under IPDS for Baran and Jhalawar Circle is as follows:

Sl. No.	Milestone Name	Unit	Baran	Jhalawar
			Quantity commissioned	
1	New Sub-station	Nos.	2	-
2	33/11 KV Additional Transformers	Nos.	-	4
3	New Distribution Transformers	Nos.	51	46
4	Capacity Enhancement of Distribution Transformers	Nos.	19	18
5	New HT Lines	cKm	7	-
6	Aerial Bunched Cables	cKm	28	-
7	UG Cable	cKm	12	17

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3572
ANSWERED ON 10.08.2023

ELECTRIFICATION OF ALL RURAL AND URBAN HOUSEHOLDS

3572. SHRI JANARDAN SINGH SIGRIWAL:

Will the Minister of POWER
be pleased to state:

(a) whether the Government is implementing various schemes with a view to provide last mile electrical connectivity and ensure electrification to all rural and urban households;

(b) if so, the details thereof;

(c) the total number of households electrified under Pradhan Mantri Sahaj Bijli Har Ghar Yojana-Saubhagya and the percentage of total households electrified under the said Yojana through the installation of solar energy systems, State-wise including Bihar;

(d) the number of households electrified under Saubhagya through the installation of solar energy systems, State/UT-wise; and

(e) the quantum of funds allocated, distributed and utilised under Saubhagya during the last three years and the current year, State/UT-wise?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) & (b) : 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/UTs, except 18,734 households in Left Wing Extremists (LWE) affected areas of Chhattisgarh. Subsequently, seven

.....2.

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.

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/UT-wise details are at Annexure-I. The schemes stands closed on 31.03.2022.

Fresh arising of new households is a continuous process and electrification of such households is expected to be taken care of by the Distribution Utilities. However all the households which existed when Saubhagya was sanctioned and the State/UT have been told that if any such households is left, their electrification be carried out under Revamped Distribution Sector Scheme (RDSS).

(c) : As reported by the States/UTs, a total of 2.86 crore households have been electrified under Saubhagya. Out of this, 1.644% household have been electrified through installation of Solar energy system. The state/UT-wise, details of percentage of households electrified under Saubhagya as per closure including additional households electrified under Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) is attached at Annexure-II.

(d) : The details of households electrified under Saubhagya as per closure including additional households electrified under DDUGJY through the installation of solar energy systems is enclosed at Annexure–III.

(e) : There was no upfront allocation of funds for any State/District under Saubhagya scheme. 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. State/UT-wise quantum of funds allocated/distributed and utilized under SAUBHAGYA during 2019-20 to 2021-22 is attached at Annexure-IV.

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ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 3572 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State-wise electrification of households since launch of Saubhagya Scheme including Additional Households achievement under DDUGJY							
Sl. No.	State/UT	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		Grand Total(A+B)
			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	Households electrified (as on 31.03.2022) (B)	
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
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

*Electrified prior to Saubhagya and not funded under Saubhagya

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ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 3572 ANSWERED IN THE LOK SABHA ON 10.08.2023

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The percentage of households details electrified under Saubhagya as per closure and additional households electrified under DDUGJY through off grid mode

Sl. No.	State/UT	Households electrified
1	Arunachal Pradesh	11.463 %
2	Assam	4.483 %
3	Bihar	1.20 %
4	Chhattisgarh	8.250 %
5	Gujarat	0.00%
6	Haryana	0.00%
7	Himachal Pradesh	0.00%
8	Jammu & Kashmir	0.00%
9	Jharkhand	0.447 %
10	Karnataka	0.054 %
11	Ladakh	1.607 %
12	Madhya Pradesh	0.638 %
13	Maharashtra	2.012 %
14	Manipur	3.133 %
15	Meghalaya	0.499 %
16	Mizoram	5.241 %
17	Nagaland	0.00%
18	Odisha	0.560 %
19	Punjab	0.00%
20	Rajasthan	5.813 %
21	Sikkim	0.00%
22	Telangana	0.00%
23	Tripura	2.589 %
24	Uttar Pradesh	0.580 %
25	Uttarakhand	1.945 %
26	West Bengal	0.00%
	Total	1.644 %

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ANNEXURE-III

ANNEXURE REFERRED IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 3572 ANSWERED IN THE LOK SABHA ON 10.08.2023

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Details of households electrified under Saubhagya& Additional households electrified under DDUGJY through off-grid mode				
Sl. No	State	OFF grid Households electrified under Saubhagya Scheme (A)	Additional off grid households electrified under DDUGJY during 2021-22 (B)	Total (A+B)
1	Arunachal Pradesh	5398		5398
2	Assam	50754	53545	104299
3	Bihar	39100		39100
4	Chhattisgarh	65373		65373
5	Jharkhand	7740		7740
6	Karnataka	207		207
7	Madhya Pradesh	12651		12651
8	Maharashtra	30538		30538
9	Manipur	3387		3387
10	Meghalaya	598	401	999
11	Mizoram	1466		1466
12	Odisha	13735		13735
13	Rajasthan	123682		123682
14	Tripura	3601		3601
15	Uttarakhand	4837		4837
16	Uttar Pradesh	53234		53234
17	Ladakh	168		168
Total		416469	53946	470415

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ANNEXURE-IV

ANNEXURE REFERRED IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 3572 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State-wise Grant disbursed and utilized under Saubhagya Scheme during 2019-20 to 2021-22:

(Rs. in crores)

Sl. No.	State/UT	2019-20	2020-21	2021-22	Grant disbursed	Grant Utilised
1	Arunachal Pradesh	14	0.00	7.14	20.93	20.93
2	Assam	121	118.45	20.51	259.88	259.88
3	Bihar	136	17.10	23.85	177.20	177.20
4	Chhattisgarh	32	42.06	42.84	116.91	116.91
5	Haryana	3	0.00	5.48	8.46	8.46
6	Himachal Pradesh	3	0.00	0.00	2.89	2.89
7	J&K	0	0.00	0.00	0.00	-
8	Jharkhand	4	59.85	67.73	131.89	131.89
9	Karnataka	39	0.00	8.65	48.03	48.03
10	Kerala	26	13.27	11.75	51.14	51.14
11	Ladakh		0.00	0.00	0.00	-
12	Madhya Pradesh	0	6.32	139.86	146.18	146.18
13	Maharashtra	43	0.00	19.88	63.25	63.25
14	Manipur	33	12.13	4.84	50.01	50.01
15	Meghalaya	88	1.37	18.93	108.09	90.09
16	Mizoram	0	6.03	0.55	6.59	6.59
17	Nagaland	0	0.00	14.95	14.95	14.95
18	Orissa	0	0.00	77.92	77.92	77.92
19	Punjab	0	0.36	0.35	0.71	0.71
20	Rajasthan	76	100.97	24.22	201.59	201.59
21	Sikkim	1	1.15	0.22	1.90	1.90
22	Telangana	15	0.00	1.39	16.77	16.77
23	Tripura	8	0.27	21.66	30.04	30.04
24	Uttar Pradesh	26	52.31	349.93	427.99	427.99
25	Uttarakhand	7	0.54	6.42	13.79	13.79
26	West Bengal	20	15.92	46.10	82.29	82.29
	Total	696	448.09	915.16	2059.38	2,041.38

Note: Saubhagya stands closed as on 31.03.2022.

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3584
ANSWERED ON 10.08.2023

PUBLIC EV CHARGING POINTS

3584. SHRI SANJAY KAKA PATIL:
SHRI KURUVA GORANTLA MADHAV:

Will the Minister of POWER
be pleased to state:

(a) whether the Government proposes to expand the public electric vehicle charging infrastructure and if so, the details thereof;

(b) the details of the number of public Electric Vehicles (EVs) charging points set up in the country;

(c) whether the Government has taken any measures to promote the manufacturing and sell of EVs in the country and if so, the details thereof; and

(d) whether the Government has assessed the impact of EVs on the environment and if so, the details thereof?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : The Ministry of Power has taken several initiatives to accelerate deployment of public Electric Vehicle (EV) charging infrastructure in the country. Details of the initiatives are as follows:

1) **Issue of clarification on Charging Infrastructure for Electric Vehicles: Ministry of Power on 13.04.2018 issued clarification on Charging Infrastructure for Electric Vehicles with reference to the provisions of the Electricity Act, 2003 stating that the charging of EV batteries through public charging stations does not require any license under the provisions of Electricity Act, 2003.**

.....2.

2) **Formulation of Guidelines and Standards for EV Charging Infrastructure: Ministry of Power issued Guidelines and Standards for public EV charging infrastructure with following salient features:**

i. **Supporting creation of EV Charging Infrastructure; with the objective of providing affordable tariff chargeable from Public EV Charging Station Operators/Owners and Electric Vehicle (EV) users.**

ii. **Introducing Revenue Sharing Model for provision of land at promotional rates for public charging stations.**

iii. **Prescribing single part EV tariff for public charging stations. Cost of supply by DISCOMs to a Public EV Charging Station shall be 0.8 times ACoS during solar hours and 1.2 times ACoS during non-solar hours.**

iv. **Specifying ceiling limits on service charges being levied by public EV charge point operators on the EV customers to recover the cost of servicing the capital investments (excluding GST) made by it in setting up the PCS. The amendment specifies a ceiling of Rs 2.50 per unit and Rs 3.50 per unit of electricity used for slow AC charging of EVs at PCS during the solar and non-solar hours respectively. Additionally, for DC fast charging, a ceiling limit of Rs 10 per unit and Rs 12 per unit of electricity during the solar and non-solar hours respectively has also been specified.**

(b) : As per data for operational public EV charge points available with Bureau of Energy Efficiency (BEE), as on 31st July 2023, a total of 17,236 no. of public EV charging points are operational across the country. The details of state-wise operational public EV charging points is at Annexure.

(c) : In order to promote manufacturing and usage of electric and battery eco-friendly vehicles in the country, the Government has launched the Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) Scheme in 2015 on pan India basis with an aim to reduce dependency on fossil fuel and to address issues of vehicular emissions. At present, Phase-II of FAME India Scheme is being implemented for a period of 5 years w.e.f. 01st April, 2019 with a total budgetary support of Rs. 10,000 crores. This phase focusses on supporting electrification of public & shared transportation and aims to support, through subsidies, 7090 e-Buses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars and 10 lakh e-2 Wheelers. In addition, creation of charging infrastructure is also supported for users of electric vehicles.

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Further, following steps have been taken by the Government for adoption of electric vehicles in the country:

i. The Government on 12th May, 2021 approved a Production Linked Incentive (PLI) scheme for manufacturing of Advanced Chemistry Cell (ACC) in the country in order to bring down prices of battery in the country. Drop in battery price will result in cost reduction of electric vehicles.

ii. Electric Vehicles (EVs) are covered under Production Linked Incentive (PLI) scheme for Automobile and Auto Components, which was approved on 15th September, 2021 with a budgetary outlay of Rs. 25,938 crore for a period of five years.

iii. GST on EVs has been reduced from 12% to 5%; GST on chargers/ charging stations for EVs has been reduced from 18% to 5%.

iv. Ministry of Road Transport and Highways (MoRTH) announced that the battery-operated vehicles will be given green license plates and be exempted from permit requirements.

v. Ministry of Road Transport and Highways (MoRTH) issued a notification advising states to waive road tax on EVs, which in turn will help reduce the initial cost on EVs.

(d) : India submitted its Long-term Low-emission Development Strategy (LT LEDS) to the UNFCCC in 2022. This policy document makes a mention of seven strategic low-emissions development transitions. One of these is to develop an integrated, efficient, inclusive low-carbon transport system. It suggests electrification across multiple modes, including a comprehensive package of programmes, policies, and measures for the domestic manufacturing of electric vehicles and batteries. The document may be accessed through the link: *http://unfccc.int/sites/default/files/resource/India LTLEDS.pdf*

Further, Government of India published the Battery Waste Management Rules, 2022 on 24th August, 2022 for environmentally sound management of waste batteries, including EV batteries. The rules provide Extended Producer Responsibility framework for producers of batteries to recycle/refurbish the waste batteries as per the prescribed timelines. The rules mandate the recyclers to recover the minimum percentage of materials from waste batteries.

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ANNEXURE

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 3584 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State wise public EV charging points and operational public EV Charging Stations in the country(as on 31st July 2023)

Sl. No.	State / UT	No. of operational PCS	Number of Public EV Charging Points
1.	Andaman & Nicobar	3	5
2.	Andhra Pradesh	307	355
3.	Arunachal Pradesh	9	16
4.	Assam	52	91
5.	Bihar	106	183
6.	Chandigarh	9	17
7.	Chhattisgarh	110	156
8.	Delhi	1627	3247
9.	Goa	55	90
10.	Gujarat	303	601
11.	Haryana	279	625
12.	Himachal Pradesh	37	53
13.	Jammu & Kashmir	32	63
14.	Jharkhand	114	192
15.	Karnataka	753	1680
16.	Kerala	187	448
17.	Lakshadweep	1	2
18.	Madhya Pradesh	267	438
19.	Maharashtra	2494	4211
20.	Manipur	17	32
21.	Meghalaya	19	80
22.	Nagaland	7	10
23.	Odisha	153	287
24.	Puducherry	4	8
25.	Punjab	121	247
26.	Rajasthan	373	629
27.	Sikkim	2	4
28.	Tamil Nadu	459	1320
29.	Telangana	412	675
30.	Tripura	18	33
31.	Uttar Pradesh	469	852
32.	Uttarakhand	50	108
33.	West Bengal	264	478
Total		9113	17,236

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3591
ANSWERED ON 10.08.2023

SMART METERS UNDER RDSS

3591. SHRI KODIKUNNIL SURESH:

Will the Minister of POWER be pleased to state:

(a) whether the Government has launched the Revamped Distribution Sector Scheme (RDSS) project in 2021 to ensure mass adoption of prepaid smart meters;

(b) if so, whether Kerala State is yet to complete the implementation of smart meters in the State;

(c) whether the Government is aware of the report that such smart meters are likely to be replaced after every five to eight years and would burden the consumers; and

(d) if so, whether the Government proposes to provide subsidies to consumers for bearing the expenses in this regard and if so, the details thereof?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) & (b) : Government of India has launched Revamped Distribution Sector Scheme (RDSS) in July, 2021 with the objective of improving the quality and reliability of power supply to consumers through a financially sustainable and operationally efficient distribution Sector. Scheme aims to reduce the AT&C losses to pan-India levels of 12-15% and ACS-ARR gap to zero by 2024-25. The Scheme has an outlay of Rs. 3, 03,758 crore with an estimated gross budgetary support of Rs. 97,631crore from the Government of India. The scheme envisages installation of 25 crore Prepaid Smart metering solution at consumer, Distribution Transformer (DT) and feeder level including integration of existing infrastructure. So far, 21 crore smart meters have been sanctioned to various States/ DISCOMs under RDSS.

.....2.

The details of smart metering works sanctioned under RDSS for the State/ DISCOM of Kerala are as under:

Item	Number
Smart Consumer Meters	13,289,361
Communicable DT Meters	87,615
Communicable Feeder Meters	6,025

The DISCOM is in the process of tendering and award of the sanctioned works and the installation of smart meters in the State of Kerala is yet to commence.

Data gathered as part of the two-way communication in a smart metering solution will help utilities to improve their load forecasting, which will help them in optimizing their power procurement thereby reducing the cost of power supply. The direct impact of this feature will be on reducing the ACS-ARR gap and AT&C losses of the DISCOM which will ultimately benefit end consumer. Further, a smart meter captures consumer profile, consumption pattern and provides real-time information to consumers to plan their usage of electricity.

(c) & (d) : No such report is available regarding replacement of smart meters every five to eight years. However, roll-out of smart meters under RDSS is envisaged through PPP (Public Private Partnership) on TOTEX mode which makes this component self-financing and the DISCOM will not have to pay upfront for the capital expenditure on the same. The AMISP (Advanced Metering Infrastructure Service Provider) will be responsible for supplying, maintaining and operating the metering infrastructure post installation. This approach provides end-to-end responsibility of AMISP for delivery of services during the entire life cycle of the project (7-10 years). Under TOTEX mode, it is expected that the DISCOM will be able to finance per month cost with the enhanced revenue as a result of improvement in billing and collection due to prepaid metering.

Further, under RDSS, financial assistance for Smart Metering works is being provided as below:

I. **Grant of Rs 900 or 15% of the cost per consumer meter (whichever is lower), for "Other than Special Category" States and a grant of Rs 1350 or 22.5% of the cost per consumer (whichever is lower) for "Special Category" States.**

II. **Additional incentive of 7.5% of the cost per consumer meter or Rs. 450 (whichever is lower) for Other than Special Category States and 11.25% or Rs. 675 per consumer meter (whichever is lower) for "Special Category" States to incentivize the States/UTs to fast-track installation of prepaid Smart Meters by December 2023.**

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3609
ANSWERED ON 10.08.2023

EESL UNDER UJALA SCHEME

3609. SHRI ARVIND GANPAT SAWANT:

Will the Minister of POWER be pleased to state:

(a) the aims and objectives of launching 'Ujala' Scheme;

(b) whether Energy Efficiency Services Limited (EESL) was deployed for rendering the services under this scheme;

(c) if so, the details of the services/products provided by EESL;

(d) the details of services/products provided by EESL to States and their Local bodies, State-wise;

(e) the details of the costs of such services/products provided by EESL, State-wise;

(f) the details of the total amount of bills/invoices to be paid by various States and local bodies to EESL; and

(g) whether the Government has extended some relief by providing financial grants to this company and if so, the details thereof?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : Unnat Jyoti by Affordable LEDs for All (UJALA) scheme aimed at increasing the adoption of energy efficient LED lamps in place of Incandescent Lamps (ICL) / CFL lamps for bringing down the energy consumption in domestic lighting. As the price of LED lamps was much higher than that of ICL/CFL lamps, the major objective of the UJALA scheme was to bring down the price of LED bulbs through demand aggregation and bulk procurement.

The main objective of the scheme was to reduce electric energy consumption and peak demand of the country, monetary savings and reduction of Green House Gases (GHGs) emissions.

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(b) & (c) : Energy Efficiency Services Limited (EESL), a joint venture company of PSUs under the Ministry of Power was entrusted with scaling up the adoption of LED lamps in the country and was implementing a LED bulb distribution programme since 2014. EESL continued to play significant role in transforming the domestic lighting Market through the distribution of LED bulbs/tubes under the UJALA scheme after its launch in January 2015.

Under the UJALA scheme, LED bulbs, LED Tube lights and Energy efficient fans are being provided to domestic consumers for replacement of conventional and inefficient variants. As of date, EESL has distributed 36.86 crore LED bulbs, 72.18 lakhs LED Tube-Lights and 23.59 lakhs Energy Efficient Fans under the scheme.

(d) : The state wise details of the distribution of LED bulbs, LED Tube lights and Energy efficient fans under the UJALA scheme are attached at Annexure-I.

Further, Hon'ble Prime Minister, on 5th January, 2015 has launched Street Light National Programme (SLNP) to replace conventional street lights with smart and energy efficient LED streetlights in the local bodies across the country.

Till date, EESL has installed over 1.29 crore LED street lights in ULBs and Gram Panchayats across India. Details of state wise LED Street Lights installed under SLNP are at Annexure-II.

(e) : The details of cost of products provided by EESL under UJALA scheme are as below:

Sr. No.	Appliance	Unit rate
1	LED bulb	Initially ₹ 100 then reduced to ₹ 65
2	LED tube Light	₹ 220
3	Energy Efficient Fans	₹ 1110

However, the SLNP programme is implemented under Energy Service (ESCO) mode and the state-wise amount invoiced towards the SLNP programme till 30th June 2023, is attached at Annexure-III.

(f) : With respect to SLNP, the state-wise invoicing and pending payments is attached at Annexure-III. Under the UJALA scheme, there are pending overdue payments from various DISCOMs of States, and the state-wise details of the same is attached at Annexure-IV.

(g) : No, Sir. However, the matter has been taken up by the Ministry of Power with the State Governments and Ministry of Housing and Urban Affairs for payment of pending dues of EESL.

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ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PART (d) OF UNSTARRED QUESTION NO.3609 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State-wise details of the distribution of LED bulbs, LED Tube lights and Energy efficient fans under UJALA scheme:

State/UT	LED Bulb	LED Tube Light	EE Fan
Andaman and Nicobar Islands	4,00,000		
Andhra Pradesh	2,20,40,220	1,49,893	3,24,783
Arunachal Pradesh	4,99,498	42,713	32,508
Assam	71,85,428	1,52,491	43,005
Bihar	1,96,08,609	1,13,598	43,556
Chandigarh	5,54,283	57,342	15,454
Chhattisgarh	1,08,22,335	2,82,360	65,097
Dadra and Nagar Haveli	1,63,808	4,884	1,886
Daman and Diu	1,42,623	547	19
Delhi	1,34,19,641	2,55,385	18,060
Goa	10,05,890	-	-
Gujarat	4,14,48,713	12,76,256	6,54,260
Haryana	1,56,08,119	2,13,302	60,709
Himachal Pradesh	86,48,483	94,949	22,374
Jammu & Kashmir	87,17,209	14,363	7,283
Jharkhand	1,36,45,874	1,68,019	31,621
Karnataka	2,42,64,486	4,12,846	72,197
Kerala	1,54,29,919	19,650	9,100
Lakshadweep	2,00,000	50,000	-
Madhya Pradesh	1,75,74,110	4,25,026	1,08,133
Maharashtra	2,19,86,569	5,31,133	1,86,211
Manipur	2,99,934	20,593	-
Meghalaya	4,33,789	4,495	-
Mizoram	6,15,332	36,125	1,579
Nagaland	10,99,038	25,833	7,499
Odisha	5,22,70,570	1,70,868	37,770
Pondicherry	6,09,251	-	-
Punjab	30,16,739	99,766	18,328
Rajasthan	1,73,21,034	3,49,684	94,165
Sikkim	1,64,000	7,819	-
Tamil Nadu	43,63,183	6,20,181	1,74,193
Telangana	28,75,082	3,13,793	48,310
Tripura	10,54,437	84,213	15,334
Uttar Pradesh	2,62,95,635	5,11,973	2,03,427
Uttarakhand	56,73,850	39,114	5,815
West Bengal	92,29,228	6,69,711	56,558
Total	36,86,86,919	72,18,925	23,59,234

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ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (d) OF UNSTARRED QUESTION NO.3609 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State-wise figure of LED Street Lights installed under SLNP:

STATE	Total
ANDHRA PRADESH	29,47,706
TELANGANA	16,55,460
TAMILNADU	7,876
PORTBLAIR	14,995
MAHARASHTRA	11,03,306
KERALA	4,33,979
KARNATAKA	13,226
GOA	2,07,183
LAKSHADWEEP	1,000
WEST BENGAL	93,532
JHARKHAND	5,34,356
BIHAR	5,73,022
RAJASTHAN	10,72,033
GUJARAT	9,03,519
UTTAR PRADESH	12,90,949
UTTARAKHAND	1,30,338
CHHATTISGARH	3,81,199
ODISHA	3,53,808
MADHYA PRADESH	2,90,951
DELHI	3,80,377
JAMMU & KASHMIR	1,74,597
HIMACHAL PRADESH	62,982
PUNJAB	1,27,267
CHANDIGARH	46,496
HARYANA	85,139
SIKKIM	1,073
TRIPURA	76,426
ASSAM	28,875
PONDICHERRY	1,520
TOTAL	1,29,93,190

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ANNEXURE-III

ANNEXURE REFERRED IN REPLY TO PARTS (e) & (f) OF UNSTARRED QUESTION NO.3609 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State-wise invoicing & pending payments from ULBs under SLNP are as under:

(in ₹ Crore)

States/UTs	Total Invoicing	Total Collection	Total Outstanding (As on 30.06.2023)
Andhra Pradesh	1357.91	551.71	806.20
Rajasthan	1033.70	434.71	598.99
Uttar Pradesh	852.55	502.16	350.39
Maharashtra	462.32	187.57	274.75
Telangana	753.20	584.40	168.80
Bihar	269.71	127.15	142.56
Gujarat	358.65	224.41	134.25
Jharkhand	225.83	104.41	121.42
Delhi	498.13	412.59	85.55
Chhattisgarh	179.62	135.09	44.53
Madhya Pradesh	93.80	55.19	38.62
Orissa	281.27	255.90	25.37
Punjab	43.53	20.13	23.39
Jammu & Kashmir	69.25	46.04	23.20
West Bengal	35.70	14.22	21.47
Goa	149.08	127.64	21.44
Haryana	55.16	35.70	19.46
Chandigarh	33.41	20.19	13.22
Tripura	58.91	49.36	9.54
Andaman & Nicobar	16.50	7.18	9.32
Himachal	54.82	46.79	8.03
Kerala	68.52	61.43	7.09
Uttarakhand	45.50	38.44	7.07
Assam	7.17	0.56	6.61
Dadra & Nagar Haveli	0.24	0.24	0.00
TOTAL	7004.5	4043.2	2961.3

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ANNEXURE-IV

ANNEXURE REFERRED IN REPLY TO PART (f) OF UNSTARRED QUESTION NO.3609 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State-wise pending overdue payments from various DISCOMs of States under UJALA scheme:

State	Outstanding Amt (₹)
Andhra Pradesh	50,89,28,031
Assam	1,87,88,709
Bihar	1,79,96,928
Chhattisgarh	9,17,65,663
Dadra and Nagar Haveli	10,01,375
Delhi	1,05,47,412
Goa	33,16,354
Gujarat	62,88,64,857
Himachal Pradesh	16,78,215
Jammu and Kashmir	9,26,13,230
Karnataka	7,11,46,390
Maharashtra	11,77,11,244
Manipur	61,02,038
Mizoram	12,000
Orissa	3,52,804
Puducherry	5,41,19,675
Rajasthan	7,27,12,783
Uttar Pradesh	1,00,19,887
Uttarakhand	26,21,692
Total	1,71,02,99,287

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3636
ANSWERED ON 10.08.2023

POWER TRANSMISSION PROJECTS

3636. SHRI NAMA NAGESWARA RAO:

Will the Minister of POWER be pleased to state:

(a) the details of the number of Power Transmission Projects (PTP) completed and those under progress;

(b) the details of the new such projects proposed by the Government; and

(c) the details of the projects awarded under Engineering, Procurement and Construction (EPC) and Build, Operate, Transfer (BOT) methods?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : 269 nos. Inter State Transmission System (ISTS) projects have been completed since 2014, out of which 45 nos. projects are under Tariff Based Competitive Bidding (TBCB) mode and 224 nos. projects, executed by Power Grid Corporation of India Limited (POWERGRID), are under Regulated Tariff Mechanism (RTM) mode. The details of such completed projects are at Annexure-I and Annexure-II.

Further, 63 nos. ISTS projects are under progress, out of which 32 nos. projects are under TBCB mode and 31 nos. projects, being executed by POWERGRID, are under RTM mode. The details of such under progress projects are at Annexure-III and Annexure-IV.

(b) : The details of 28 nos. new ISTS projects being taken up for implementation are attached at Annexure-V.

(c) : ISTS projects are not awarded under EPC or BOT mode. ISTS projects are awarded either through TBCB mode to successful bidder with the lowest quoted tariff or through RTM mode on nomination basis to Public Sector Undertakings.

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ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3636 ANSWERED IN THE LOK SABHA ON 10.08.2023

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List of ISTS projects commissioned under TBCB mode since 2014

Sl. No	Transmission project name	Parent Company	Year and month of commissioning
1	Western Region System Strengthening – II under Project – B (Maharashtra)	Adani TL	Jan-14
2	Transmission System Associated with Krishnapattnam UMPP-Synchronous interconnection between SR and WR (Part-B)	RSTCL	Jun-14
3	Scheme for enabling import of NER/ER surplus by NR	Sterilite Power TL	Nov-14
4	System strengthening for WR	Sterilite Power TL	May-15
5	System strengthening common for WR and NR	Sterilite Power TL	Sep-15
6	Western Region System Strengthening – II under Project – C (Gujarat)	Adani TL	Dec-15
7	Transmission System for Patran 400kV S/S	Techno Electric	Jun-16
8	Transmission System required for evacuation of power from Kudgi TPS (3x800 MW in Phase-I) of NTPC Ltd.	L&T	Sep-16
9	Transmission system for Strengthening in SR for Import of Power from ER.	PGCIL	Sep-16
10	Part ATS for RAPP U-7&8 in Rajasthan	Sterilite Power TL	Nov-16
11	ATS of Unchahar TPS	PGCIL	Dec-16
12	Eastern Region System Strengthening Scheme-VII	Sterilite Power TL	Jan-17
13	Northern Region System Strengthening Scheme, NRSS-XXXI (Part-B)	Essel Infra	Apr-17
14	NR System strengthening Scheme-NRSS-XXXI(Part-A)	PGCIL	Jul-17
15	Eastern Region System Strengthening Scheme-VI	Essel Infra	Aug-17
16	Connectivity lines for Maheshwaram 765/400 kV S/S	Sterilite Power TL	Dec-17
17	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part-B)	PGCIL	Jun-18
18	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part-A)	PGCIL	Jul-18
19	Northern Regional System Strengthening Scheme, NRSS-XXIX	Sterilite Power TL	Aug-18
20	Transmission System Strengthening associated with Vindhyachal – V	PGCIL	Dec-18
21	Common Transmission system for phase-II generation projects in Orissa and immediate evacuation system for OPGC project (Orissa)	Sterilite Power TL	Dec-18
22	Transmission system associated with IPPs of Nagapattinam / Cuddalore Area- Package A	PGCIL	Jan-19
23	Additional system strengthening for Sipat STPS	Adani TL	Mar-19
24	Additional system strengthening for Chhattisgarh (B)	Adani TL	Mar-19
25	Transmission system strengthening in Indian system for transfer of power from new HEP's in Butan	Kalpataru	Mar-19
26	System strengthening for IPPs in Chhattisgarh and other generation projects in western region	Adani TL	Aug-19

27	Strengthening of Transmission system beyond Vemagiri	PGCIL	Jan-20
28	Creation of new 400 kV GIS substations in Gurgaon area and Palwal as a part of ISTS	Sterilite Power TL	Mar-20
29	North Eastern Region Strengthening Scheme (NERSS-VI)	Kalpataru	Oct-20
30	Transmission system for NER System Strengthening Scheme-II (Part-B) and V (NER-IIB & V)	Sterlite Power TL	Mar-21
31	Transmission System associated with LTA application from Rajasthan SEZ (Part -A)	PGCIL	May-21
32	Transmission System for Ultra Mega Solar Park in Fatehgarh, Distt. Jaisalmer Rajasthan	Adani TL	Jul-21
33	WR - NR Interconnector	PGCIL	Jul-21
34	Transmission System associated with LTA application from Rajasthan SEZ (Part -B)	PGCIL	Aug-21
35	Transmission System Associated with LTA applications from Rajasthan SEZ Part-D	Adani TL	Sep-21
36	Eastern Region Strengthening Scheme - XXI	PGCIL	Oct-21
37	Transmission System associated with LTA application from Rajasthan SEZ (Part -C)	PGCIL	Oct-21
38	Connectivity system for Khargone TPP.	Sterlite Power TL	Dec-21
39	Transmission System for Western Region Strengthening Scheme – 21 (WRSS – 21) Part – A – Trasnsmission System Strengthening for Relieving Over Loadings Observed in Gujarat Intra-State System Due to Re-injections in Bhuj PS	Adani TL	Aug-22
40	Transmission System for Transmission System Associated with RE Generations at Bhuj-II, Dwarka & Lakadia	Adani TL	Aug-22
41	Eastern Region strengthening Scheme - XVIII	PGCIL	Aug-22
42	Transmission System for Jam Khambaliya Pooling Station and Interconnection of Jam Khambaliya Pooling Station for Providing Connectivity to RE Projects (1500 MW) in Dwarka (Gujarat) and Installation of 400/220 kV ICT along with Associated Bays at CGPL Switchyard	Adani TL	Oct-22
43	Transmission System for providing connectivity to RE Projects at Bhuj-II (2000 MW) in Gujarat	PGCIL	Nov-22
44	WRSS – 21 Part – B – Transmission System Strengthening for Relieving Over Loadings Observed in Gujarat Intra-State System Due to Re-injections in Bhuj PS	Sterlite Power TL	Jan-23
45	Transmission system associated with LTA applications from Rajasthan SEZ Part-F, Phase-II	PGCIL	Jun-23

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ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3636 ANSWERED IN THE LOK SABHA ON 10.08.2023

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List of commissioned ISTS projects, executed by POWERGRID, under RTM mode since 2014		
Sl. No.	**Project Name**	**Year of commissioning of the project**
1	One No. of 220kV bay at Chamera Pooling Point for 2nd Circuit Stringing of 220kV Karian - Chamera Pool Line	2022
2	Construction of 02 nos. of 400kV GIS line bays at Varanasi (PG) substation	2021
3	Creation of 400/220kV Substations in NCT of Delhi during 12th Plan Period (Part-B1)	2018
4	Creation of 400/220kV sub-stations in NCT of Delhi during 12th Plan period (Part-A)	2022
5	Provision of 400kV bays at Fatehpur for Associated Transmission System (ATS) of Unchahar TPS	2016
6	POWERGRID works associated with Addl. System Strengthening for Sipat STPS	2019
7	Associated Transmission System for Nabinagar-II TPS (3*660MW)	2019
8	Augmentation of Transformation capacity at Mainpuri and Sikar	2018
9	Augmentation of Transformation Capacity at Fatehabad (PG) 400/220kV substation by 1x315 MVA capacity along with associated ICT bays	2019
10	Augmentation of Transformation Capacity at Raebareli & Sitarganj 220/132kV Substations	2018
11	Augmentation of transformation capacity in Northern & Eastern Region	2015
12	Augmentation of Transformation Capacity in Southern Region	2018
13	Augmentation of Transformer & Bays in Western Region	2015
14	AUGMENTATION OF TRANSFORMATION CAPACITY AT 400/220 KV LUDHIANA (PG) SUBSTATION	2023
15	Replacement of 1x250 MVA 400/220 kV ICT at 765/400/220kV Moga (PG) S/s with 1x500 MVA 400/220 kV ICT along with associated works at 220 kV level	2023
16	Augmentation of Transformers in Northern Region - Part-A.	2015
17	Augmentation of Transformers in Northern Region - Part-B.	2019
18	Baharampur (POWERGRID) – Bheramara (Bangladesh) 2nd 400kV D/c Transmission Line (Indian Portion)	2020
19	Bus Reactors in Northern Region (Phase-II)	2017
20	Common System Associated with East Coast Energy Pvt Ltd. & NCC Power Projects Ltd. LTOA Generation Projects in Srikakulam Area Part-C	2017
21	Common System associated with East Coast Energy Pvt Ltd. & NCC Power Projects Ltd. LTOA Generation Projects in Srikakulam Area - Part-A	2017
22	Common System associated with ISGS Projects in Krishnapatnam area of Andhra Pradesh	2014
23	POWERGRID works associated with TBCB lines under common transmission system for Phase-II generation projects in Odisha	2019
24	CONNECTIVITY AND LTA FOR 325MW WIND PROJECT OF M/S SBESS SERVICES PROJECTS PVT LTD	2022
25	Connectivity for Kudankulam 3&4 (2x1000 MW) with ISTS	2018
26	Transmission system for controlling high Short Circuit Current level at 400kV Thiruvalam S/s	2021
27	Conversion of Fixed Line Reactors to Switchable Line Reactors in Southern Region	2018
28	Conversion of Fixed Line Reactors to Switchable Line Reactors in Northern Region	2020
29	Supplementary Transmission System associated with DVC and Maithon Right Bank Projects	2017
30	Transmission System for start up power for DVC & Maithon Right Bank Generation Project	2014
31	Eastern Region System Strengthening Scheme-III (ERSS-III)	2019
32	Eastern Region Strengthening Scheme-IX (ERSS-IX)	2019
33	Eastern Region Strengthening Scheme-XII (ERSS-XII)	2022
34	Eastern Region Strengthening Scheme-XIV (ERSS-XIV)	2018
35	Eastern Region Strenthening Scheme-VIII (ERSS-VIII)	2015
36	Eastern Region Strengthening Scheme-XIII (ERSS-XIII)	2017
37	EASTERN REGION EXPANSION SCHEME-XXVI (ERES-XXVI)	2023
38	Eastern Region Strenthening Scheme-V (ERSS-V)	2020
39	Substation extension work associated with Eastern Region Strengthening-VII (ERSS-VII)	2017

40	Eastern Region Strenthening Scheme-X (ERSS-X)	2014
41	Eastern Region Strengthening Scheme – XVII (Part-B) [ERSS-XVII (Part-B)]	2022
42	POWERGRID works associated with Eastern Region Strengthening Scheme-XVIII (ERSS-XVIII)	2021
43	Eastern Region Strengthening Scheme-XX (ERSS-XX)	2021
44	Eastern Region Strengthening Scheme-XXIII (ERSS-XXIII)	2021
45	Eastern Region System Strengthening Scheme-XXIV (ERSS - XXIV)	2022
46	Substation extension work associated with Eastern Region Strengthening scheme - VI (ERSS-VI)	2017
47	Eastern Region Strengthening Scheme-XI (ERSS-XI)	2019
48	Eastern Region Strengthening Scheme-XV	2021
49	Eastern Region Strengthening Scheme-XVII-Part-A (ERSS-XVII (Part-A))	2018
50	Establishment of 220/66kV, 2x160MVA GIS at UT Chandigarh along with 220kV D/C line from 220kV Chandigarh GIS Substation to 400/220kV Panchkula (PG) Substation	2023
51	Transmission System Strengthening in Indian System for transfer of power from Mangdechhu HEP in Bhutan	2021
52	POWERGRID works associated with Immediate Evacuation for North Karanpura (3x660 MW) Generation Project of NTPC	2021
53	Establishment of Pooling Stations at Champa and Raigarh(near Tamnar) for IPP Generation Projects in Chhattisgarh	2021
54	Green Energy Corridors ISTS - Part D	2020
55	Green Energy Corridors: Inter-State Transmission Scheme (ISTS) – Part-B	2019
56	Green Energy Corridors: Inter-State Transmission Scheme (ISTS) - Part C	2019
57	Green Energy Corridors: Inter-State Transmission Scheme (ISTS) – Part-A	2018
58	HVDC Bipole link between Western Region (Raigarh, Chhattisgarh) and Southern Region (Pugalur, TM) - North Trichur (Kerala) - Scheme-I	2021
59	HVDC Bipole link between Western Region (Raigarh, Chhattisgarh) and Southern Region (Pugalur, TM) - North Trichur (Kerala) - Scheme-II	2021
60	HVDC Bipole link between Western Region (Raigarh, Chhattisgarh) and Southern Region (Pugalur, TM) - North Trichur (Kerala) - Scheme-III	2021
61	Additional 1X500 MVA, 400/220kV (4th) transformer at Amritsar (Balachak) PG Substation under ISTS	2020
62	Implementation of 1 no. of 230 kV bay at PGCIL Tuticorin-II GIS PS	2022
63	Installation of Bus Reactor & ICT in Western Region	2017
64	Installation of Bus Reactors at Cuddapah, Nellore,Kurnool, Raichur and Thiruvalam	2019
65	Installation of Reactors in Western Region	2015
66	Installation of STATCOMs in Western Region	2019
67	Installation of Transformer and Procurement of Spare Converter Transformer at Bhadrawati HVDC Back to Back Station	2018
68	Integration of Pooling Stations in Chhattisgarh with central part of WR for IPP Generation Projects in Chhattisgarh	2014
69	Inter-Regional System Strengthening Scheme in WR and NR (Part-B)	2018
70	Inter-Regional System Strengthening Scheme in WR and NR (Part-A)	2017
71	Transmission system strengthening in western part of WR for IPPs generation projects in Chhattisgarh	2017
72	Transmission System for Phase-I Generation Projects in Jharkhand and West Bengal -Part -B	2016
73	Transmission System associated with Kudankulam Atomic Power Project (2x1000 MW)	2019
74	Line bays associated with Northern Region System Strengthening Scheme-XXXVI	2023
75	Line Bays Associated with Various Regional Strengthening Schemes in NR	2018
76	Line Bays Associated with Various Regional Strengthening Schemes in NR	2023
77	NERSS-XII	2023
78	NORTH EASTERN REGION STRENGTHENING SCHEME-XIII (NERSS-XIII)	2022
79	NORTH - EASTERN REGION STRENGTHENING SCHEME-IX (NERSS-IX)	2023
80	North- Eastern Region Strengthening Scheme-X (NERSS-X)	2023
81	North - Eastern Region Strengthening Scheme-XI (NERSS-XI)	2023
82	TRANSMISSION SYSTEM FOR NORTH EASTERN REGION STRENGTHENING SCHEME-XIV (NERSS-XIV)	2023
83	NLC - KARAIKAL 230kV D/C LINE	2018
84	North Eastern Region Strengthening Scheme - VIII (NERSS-VIII)	2021
85	North Eastern Region Strengthening Scheme-II (NERSS-II) Part A	2016
86	North Eastern Region System Strengthening Scheme -IV (NERSS-IV)	2019
87	North Eastern Region Strengthening Scheme-VII (NERSS-VII)	2018
88	North Eastern Region Strengthening Scheme-III (NERSS-III)	2019
89	Northern Region System Strengthening Scheme-XXI	2015
90	Northern Region System Strengthening Scheme-XXVIII	2016

91	Northern Region System Strengthening Scheme-XXX	2019
92	Northern Region System Strengthening - XL	2021
93	Northern Region System strengthening–XLII (NRSS-XLII)	2021
94	Northern Region System Strengthening Scheme-XIX	2016
95	ICTs & Bays associated with Northern Region System Strengthening Scheme (NRSS-XXXVIII)	2017
96	Provision of 400kV bays for Northern Region System Strengthening Scheme-XXIX (NRSS-XXIX)	2018
97	Northern Region System Strengthening Scheme-XXVI	2015
98	Provision of 400kV bays for lines under Northern Region System Strengthening Scheme-XXXI (Part-B)	2016
99	System Strengthening Scheme in Northern Region - XXXVII (NRSS-XXXVII)	2022
100	Northern Region System Strengthening Scheme (NRSSS)-XXXV	2021
101	Northern Region System Strengthening Scheme-XXIV	2018
102	Northern Region System Strengthening Scheme-XXVII	2016
103	Northern Region System Strengthening Scheme-XXXII	2017
104	Northern Region System Strengthening Scheme- XXXIV (NRSS-XXXIV)	2019
105	Northern Region System Strengthening Scheme-XVI	2017
106	Northern Regional Transmission Strengthening Scheme	2023
107	POWERGRID works associated with North Eastern Region Strengthening Scheme-VI	2021
108	POWERGRID works associated with North Eastern Region Strengthening Scheme-II, Part-B (NERSS-II-B)	2020
109	POWERGRID works associated with System Strengthening for IPPs in Chhattisgarh & other generation projects in WR	2018
110	POWERGRID works associated with Part-A of Transmission System for Gadarwara STPS of NTPC	2018
111	POWERGRID works associated with Transmission System Strengthening in WR associated with Khargone TPS	2019
112	POWERGRID Works associated with additional 400kV feed to Goa	2021
113	POWERGRID works associated with North Eastern Region System Strengthening Scheme-V	2021
114	Provision of 400kV bays at Shujalpur for Part ATS of RAPP 7 & 8	2016
115	Provision of Line Bays for the Scheme-Connectivity Lines for Maheshwaram (Hyderabad) 765/400kV Pooling Station	2017
116	Provision of Series Reactors in Northern Region.	2018
117	Provision of STATCOM at Nalagarh & Lucknow in NR	2020
118	Radial Interconnection between India (NER) and Bangladesh – Indian portion'	2016
119	Transmission System for providing connectivity to RE projects at Bikaner (PG), Fatehgarh-II & Bhadla-II	2023
120	Regional System Strengthening scheme to mitigate the overloading of 400 kV NP Kunta-Kolar S/C line	2022
121	Removal of Constraints in 400kV Bays extensions at 400kV Vemagiri S/S	2018
122	Sub-Station works associated with additional inter-regional AC link for import into Southern Region i.e. Warora-Warangal and Chilakaluripeta-Hyderabad-Kurnool 765kV link	2019
123	Substation works associated with Strengthening of Transmission System beyond Vemagiri	2020
124	SCHEME FOR FAULT LEVEL CONTROL AT DEHGAM (PG) & RANCHHODPURA (GETCO) S/S	2022
125	Scheme to control fault level at Wardha substation	2022
126	AUGMENTATION OF TRANSFORMATION CAPACITY AT EXISTING HIRIYUR AND KOCHI SUBSTATIONS	2023
127	Transmission System for Transfer of power from generation projects in Sikkim to NR/WR (Part-B1)	2022
128	Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under Phase II- Part- F1	2023
129	Transmission System for Solar Power Parks at Bhadla, Rajasthan	2019
130	System Strengthening - XXVI in Southern Region	2021
131	Provision of Spare ICTs and Reactors for Eastern, Northern, Southern and Western Regions	2017
132	Procurement of Spare Converter Transformer for Vizag HVDC System	2020
133	Split Bus Arrangement & Reconfiguration/Shifting of terminating lines at 400 kV Raipur Substation	2014
134	Split Bus Arrangement for various sub-stations in ER	2019
135	Transmission scheme for controlling high loading and high short circuit level at Moga substation	2022
136	Static VAR Compensators (SVCs) in Northern Region	2017
137	Strengthening Scheme in Northern Region	2017
138	Substation extensions for Trasnmission System associated with Vindhyachal-V project of NTPC (Part-B)	2019
139	Substation extensions for Trasnmission System associated with Vindhyachal-V project of NTPC (Part-A)	2017

140	Sub-station works associated with System Strengthening in Southern Region for import of power from Eastern Region	2020
141	Supplementary Transmission System for Ultra Mega Solar Power Park (700MW) at Banaskantha (Radhanesda), Gujarat	2020
142	Supplementary Transmission Scheme of Upcoming IPP Projects in Chhattisgarh	2014
143	System Strengthening in Southern Region- XII	2018
144	System Strengthening -XIII in Southern Regional Grid	2020
145	System Strengthening - XVII in Southern Regional Grid	2015
146	System Strengthening-XXIV in Southern Region	2018
147	System Strengthening - XXV in Southern Region	2021
148	Line Bays and Reactor provisions at POWERGRID substations associated with System Strenthening common for Western Region & Northern Region	2015
149	System Strengthening in North/West part of WR for IPP projects in in Chhattisgarh	2016
150	System Strengthening in Northern Region for Sasan & Mundra Ultra Mega Power Projects	2015
151	System Strengthening in Raipur-Wardha corridor for IPP Projects in Chhattisgarh	2017
152	System Strengthening in Southern Region - XXIII	2020
153	System Strengthening in Southern Region-XIV	2019
154	System Strengthening - XIX in Southern Regional Grid	2015
155	System Strengthening XVIII in Southern Regional Grid	2015
156	System Strengthening – XX in Southern Regional Grid	2018
157	System Strengthening in Southern Region – XXI	2019
158	System Strengthening in Southern Region - XXII	2015
159	ICTs & Bays associated with Northern Region System Strengthening Scheme (NRSS-XXXVIII)	2019
160	System Strengthening Scheme at Tuticorin-II (erstwhile Tirunelvelli GIS) and Bhuj PS	2022
161	Common System Associated with East Coast Energy Pvt Ltd. & NCC Power Projects Ltd. LTOA Generation Projects in Srikakulam Part-B	2018
162	Transmission system associated with Darlipalli TPS	2017
163	Transmission System for Phase-I Generation Project in Odisha- Part -A	2016
164	POWERGRID works associated with Common Transmission System for Phase-II generation pojects in Odisha	2019
165	POWERGRID works associated with TBCB lines under common transmission system for Phase-II generation projects in Odisha	2019
166	POWERGRID works associated with new WR-NR 765kV Inter-Regional Corridor	2021
167	POWERGRID works associated with Transmission System Strengthening in IndianSystem for transfer of Power from new HEPs in Bhutan	2019
168	Transmission System associated with DGEN TPS (1200MW) of Torrent Power Ltd	2018
169	Transmission System for Connectivity for NCC Power Projects Ltd. (1320MW)	2016
170	Transmission System for establishment of 400/220kV GIS S/S at Magarwada in UT DD	2015
171	Transmission System for transfer of power from Generation Projects in Sikkim to NR/WR-Part-A	2016
172	Transmission System for transfer of power from Generation Projects in Sikkim to NR/WR-Part-B	2016
173	Transmission System for Phase-I Generation Projects in Jharkhand & West Bengal-Part-A2	2016
174	Transmission Network Expansion in Gujarat to increase its ATC from ISTS (Part A)	2022
175	Transmission system associated with Kakrapar Atomic Power Project - 3 & 4	2017
176	Transmission System associated with Kishenganga HEP	2019
177	Transmission System associated with Krishnapatnam UMPP-Part-C1	2014
178	TS associated with Mauda Stage-II (2x660 MW) generation project	2017
179	Transmission System Associated with Meja TPS	2016
180	Transmission System associated with Rampur HEP	2014
181	Transmission System associated with RAPP 7 & 8 Part-B	2018
182	Transmission System associated with RAPP-7&8 Part A	2017
183	Transmission system for controlling High Loading of Nellore (PG) – Nellore PS 400kV (Quad) D/c Line	2021
184	Transmission System for connectivity of MB Power (M.P.) Limited	2014
185	Immediate Evacuation System associated with Barh-II TPS	2014
186	Transmission System for IPP generation projects in Madhya Pradesh & Chhattisgarh	2015
187	Transmission System associated with Krishnapatnam UMPP-Part-B	2014
188	Transmission System associated with Lara STPS-I (2x800MW) generation project of NTPC	2017
189	Transmission System for Phase-I Generation Project in Odisha- Part -B	2015
190	Transmission System for Phase-I Generation Projects in Odisha- Part-C	2015
191	Transmission System for Solapur STPP (2x660 MW)	2015
192	Transmission system associated with Solapur STPP (2x660MW) Part-A	2017
193	Transmission System for Solar Energy Zones in Rajasthan	2021

194	Transmission System associated with Tehri Pump Storage Plant (PSP)	2020
195	Transmission System for Ultra mega Solar Park in Anantpur District, Andhra Pradesh - Part-A (Phase-I)	2017
196	Transmission System for Ultra mega Solar Park in Anantpur District, Andhra Pradesh - Part-B (Phase-II)	2018
197	Transmission System for Ultra Mega Solar Park in Anantpur District, Andhra Pradesh - Part C (Phase - III)	2018
198	Transmission System for Ultra Mega Solar Park (750MW) at Rewa district, Madhya Pradesh	2018
199	Transmission System for Ultra Mega Solar Power Park at Banaskantha (Radhanesda) Gujarat.	2020
200	Transmission System for Vindhyachal - IV (1000MW) and Rihand - III (1000MW) Generation Projects	2015
201	Transmission system strengthening associated with Mundra UMPP- Part A	2017
202	Transmission System Strengthening associated with Mundra UMPP (Part-B)	2019
203	Transmission system for evacuation of power from 2x500 MW Neyveli Lignite Corp. Ltd. TS-1 (Replacement) (NNTPS) in Neyveli, Tamil Nadu	2021
204	Transmission System for Ultra Mega Solar Park at Tumkur (Pavagada), Karnataka, Phase-I	2018
205	Transmission System for Ultra Mega Solar Park at Tumkur (Pavagada), Karnataka - Phase II (Part A)	2020
206	Transmission System for Ultra Mega Solar Power Park at Tumkur (Pavagada), Karnataka - Phase-II Part-C	2019
207	Additional ATS for Tumkur (Pavagada) [Transmission System for Ultra Mega Solar Park at Tumkur (Pavagada), Karnataka -Phase-II (Part-B)	2021
208	Common System associated with Coastal Energen Private Limited and Ind-Barath Power (Madras) Limited LTOA Generation Projects Tuticorin area Part-A	2015
209	Common System associated with Coastal Energen Private Limited and Ind-Barath Power (Madras) Limited LTOA Generation Projects Tuticorin area (Part-B)	2016
210	TS-ISGS Projects in Nagapattinum/Cuddalore area - Part-A1 (a)	2015
211	TS-ISGS Projects in Nagapattinum/Cuddalore area Part-A1 (b)	2019
212	Wardha - Hyderabad 765kV link	2017
213	Western Region Strengthening Scheme - V	2019
214	Western Region Strengthening Scheme - XIII	2015
215	Western Region Strengthening Scheme - XIV	2018
216	POWERGRID Works associated with Western Region Strengthening Scheme – XV	2018
217	Western Region Strengthening Scheme - XVI	2019
218	Western Region Strengthening Scheme - XVII	2019
219	Western Region Strengthening Scheme - XVIII	2019
220	WR - NR HVDC Interconnector for IPP Projects in Chattisgarh	2017
221	WRSS-19	2022
222	Western Region System Strengthening - XX (WRSS-XX)	2022
223	Western Region System Strengthening Scheme (WRSS) -22	2023
224	Western Region System Strengthening Scheme (WRSS) – 23	2022

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ANNEXURE-III

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3636 ANSWERED IN THE LOK SABHA ON 10.08.2023

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List of Under progress ISTS Projects under TBCB mode

Sl. No.	Name of Project/Name of element	Executing Agency	Anticipated schedule of Completion
1	Transmission system associated with LTA applications from Rajasthan SEZ Part-A, Phase-II	POWERGRID Ramgarh Transmission Limited	Sep-23
2	Transmission system associated with LTA applications from Rajasthan SEZ Part-B, Phase-II	POWERGRID Bhadla Transmission Limited	Mar-24
3	Transmission system associated with LTA applications from Rajasthan SEZ Part-C, Phase-II	POWERGRID Sikar Transmission	Sep-24
4	Transmission system associated with LTA applications from Rajasthan SEZ Part-D, Phase-II	Sikar II – Aligarh Transmission Limited	Mar-24
5	Transmission system associated with LTA applications from Rajasthan SEZ Part-G, Phase-II	Khetri Narela Transmission Limited	Mar-24
6	Transmission system for evacuation of power from Neemuch Solar Park (1000 MW)	Neemuch Transmission Limited	Feb-24
7	System Strengthening Scheme for Eastern and North Eastern Region	ER NER Transmission Limited (ENTL)	Oct-25
8	Transmission Scheme for evacuation of 4.5GW RE injection at Khavda PS under Phase II- Part B	Khavda II-B Transmission Limited	Mar-25
9	Transmission Scheme for evacuation of 4.5GW RE injection at Khavda PS under Phase II- Part C	Khavda II-C Transmission Limited	Mar-25
10	Transmission Network Expansion in Gujarat associated with integration of RE projects from Khavda potential RE zone	Khavda RE Transmission Limited	Mar-25
11	Establishment of Khavda Pooling Station-2 (KPS2) in Khavda RE park	KPS2 Transmission Limited	Dec-24
12	Establishment of Khavda Pooling Station-3 (KPS3) in Khavda RE park	KPS3 Transmission Limited	Dec-24
13	Inter-Regional ER-WR Interconnection	ERWR Power Transmission Limited	Mar-25
14	Transmission System associated with Western Region Expansion Scheme- XXVII (WRES-XXVII)	Raipur Pool Dhamtari Transmission Limited	Sep-24
15	Transmission System associated with Western Region Expansion Scheme- XXVIII (WRES-XXVII) & XIX (WRES-XIX)	Dharamjaigarh Transmission Limited	Mar-25
16	Transmission system associated with LTA applications from Rajasthan SEZ Part-E, Phase-II	Bhadla Sikar Transmission Limited	Sep-24
17	Additional 400kV Feed to Goa and Additional System for Power Evacuation from Generation Projects pooled at Raigarh (Tamnar) Pool	Goa-Tamnar Transmission Project Limited	May-25

18	Establish Transmission System for 400 kV Udupi (UPCL) – Kasargode D/C Line	Udupi Kasargode Transmission Limited	Dec-24
19	Western Region Strengthening Scheme-XIX (WRSS-XIX) and North Eastern Region Strengthening Scheme-IX (NERSS-IX)	Mumbai Urja Marg Limited (erstwhile, Vapi II- North Lakhimpur Transmission Limited)	Jun-24
20	Establishment of new 220/132kV substation at Nangalbibra	Nangalbibra-Bongaigaon Transmission Limited	Jun-24
21	Transmission System for evacuation of power from Pakaldul HEP in Chenab Valley HEPs – Connectivity System	Kishtwar Transmission Limited	Apr-25
22	Additional inter regional AC link for import into southern region i.e Warora-Warangal and Chilakaluripeta – Hyderabad – Kurnool 765 kV link	Warora Kurnool Transmission Ltd.	Aug-23
23	Immediate evacuation for North Karanpura (3x660MW) generation project of NTPC (ERSS-XXIX)	North Karanpura Transco Ltd	Nov-24
24	Transmission System for Karur Pooling Station (at a location in between Karur Wind zone and Tiruppur wind zone) along with LILO of both circuits of Pugalur – Pugalur (HVDC) 400 kV D/C line (with Quad Moose ACSR Conductor) at Karur PS	Karur Transmission Limited/PFC	Sep-23
25	Transmission scheme for evacuation of 3GW RE injection at Khavda P.S. under Phase-I	Khavda Bhuj Transmission Limited/PFC	Jan-25
26	Transmission System for evacuation of power from RE Projects in Osmanabad area (1 GW) in Maharashtra	Kallam Transmission Limited/REC	Oct-23
27	Evacuation of power from RE sources in Koppal Wind Energy Zone (Karnataka) (2500MW)	Koppal-Narendra Transmission Ltd./PFC	Sep-23
28	Transmission Scheme for Solar Energy Zone in Gadag (1000 MW), Karnataka – Part-A, Phase-I	Gadag Transmission Limited / REC	Dec-23
29	Transmission Scheme for Solar Energy Zone in Gadag (1500 MW), Karnataka – Part-A, Phase-II	Gadag II- A Transmission Limited (a subsidiary of ReNew Transmission Ventures Private Limited)	May-24
30	Transmission System for evacuation of power from RE projects in Rajgarh (2500 MW) SEZ in Madhya Pradesh	Rajgarh Transmission Limited/ REC	Nov-23
31	400 kV D/c Khandukhal (Srinagar) – Rampura (Kashipur) line (Twin HTLS*) (KRTL)	Khandukhal Rampura Transmission Limited (KRTL) (Subsidiary of Megha Engineering & Infrastructures Limited (100%)/PFC	Sep-24
32	System strengthening in northern region (NRSS XXXVI) along with LILO of Sikar-Neemrana 400 kV D/C line at Babai (RVPNL)	NRSS XXXVI Transmission Ltd.	Dec-24

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ANNEXURE-IV

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3636 ANSWERED IN THE LOK SABHA ON 10.08.2023

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List of under progress ISTS Projects being executed by POWERGRID under RTM mode

S. No.	Project Name	Anticipated commissioning schedule (Month-Year)
1	North Eastern Region Strengthening Scheme-XII (NERSS-XII)	Nov-23
2	North Eastern Region Strengthening Scheme-XVIII (NERSS-XVIII)	Apr-25
3	NERSS-XIX	Apr-24
4	Eastern Region Strengthening Scheme - XXIII	Nov-24
5	Trans system for power evacuation from Arun-3-Indian Portion	Aug-23
6	Transmission Network Expansion in Gujarat to increase its ATC from ISTS (Part-B)	Mar-24
7	Transmission Project - Jamnagar Oil Refinery of Reliance Industries Limited (RIL) to connect with Jam khambhaliya ISTS PS	Dec-23
8	Western Region System Scheme XIX - POWERGRID Works	Mar-25
9	Eastern Region Strengthening Scheme-XXII	Aug-23
10	PROVISION OF SPARE ICT's IN EASTERN REGION	Aug-23
11	Eastern Region Strengthening Scheme - XXVII	Oct-23
12	Eastern Region Strengthening Scheme - XXXI	Apr-24
13	Eastern Region Strengthening Scheme - XXVIII	Dec-23
14	Eastern Region Strengthening Scheme - XXV	Oct-24
15	Eastern Region Strengthening Scheme - XXXVI	Oct-24
16	Scheme to control fault level in Northern Region (Phase-II)	Aug-23
17	Augmentation of Transformation Capacity in Southern Region	Sep-23
18	Implementation of 1 no. 400kV line bay at Kurnool New S/s for providing connectivity to M/s Greenko AP01 IREP Pvt. Ltd. (2nd 400kV line bay for M/s Greenko)	Dec-23
19	Evacuation of RE in Tirunelveli and Tuticorin Wind Energy Zone (Tamilnadu) 500 MW	Aug-23
20	Augmentation of Transformation Capacity by 1x500MVA, 400/220 kV ICT (6th) and common facility works at Pavagada (Tumkur) PS	Dec-23
21	Augmentation of Transformation Capacity by 1x500 MVA, 400/230 kV ICT (4th) at Hosur Substation	Nov-23
22	Augmentation of Transformation Capacity by 1x500 MVA, 400/230 kV ICT (4th) at Arasur Substation	Feb-24
23	Augmentation of Transformation Capacity by 1x500 MVA 400/220 kV ICT (4th) at Mysore substation in Karnataka	Apr-24
24	Transmission System for Kurnool Wind Energy Zone/ Solar Energy Zone (AP) – Part-A & Part-B	Nov-24
25	Requirement of 1 no. 220kV line bay at 400/220 kV Amritsar (PG) by PSTCL	Sep-23
26	Western Region Expansion Scheme (WRES-26)	Jun-24
27	Western Region Expansion Scheme (WRES-31) : Part-C	Aug-24
28	TRANSMISSION SYSTEM STRENGTHENING BEYOND KOLHAPUR FOR EXPORT OF POWER FROM SOLAR & WIND ENERGY ZONES IN SOUTHERN REGION - RE-CONDUCTORING OF KOLHAPUR (PG) - KOLHAPUR 400 kV D/C LINE	Aug-23
29	AUGMENTATION OF 1X500 MVA, 400/220 KV ICT (3RD)AT BHATAPARA (PG)	Aug-23
30	AUGMENTATION OF TRANSFORMATION CAPACITY BY 1X500 MVA 400/220 KV ICT (3rd) AT RAIGARH (PG) SUBSTATION	Nov-23
31	TRANSMISSION SYSTEM FOR EVACUATION OF POWER FROM PAKALDUL HEP IN CHENAB VALLEY HEPS - LTA SYSTEM	Apr-25

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ANNEXURE-V

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 3636 ANSWERED IN THE LOK SABHA ON 10.08.2023

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List of new ISTS Projects being taken up for implementation

Sl. No.	Name of the Transmission Scheme
1.	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase- III
2.	Creation of 400/220 kV, 2x315 MVA S/S at Siot, Jammu & Kashmir
3.	Transmission system for evacuation of power from Chhatarpur SEZ (1500 MW)
4.	Transmission scheme for Solar Energy Zone in Ananthpuram (2500 MW) and Kurnool (1000 MW), Andhra Pradesh
5.	Transmission Scheme for Solar Energy Zone in Bidar (2500 MW), Karnataka
6.	Transmission system for evacuation of power from Luhri Stage-I HEP (210 MW)
7.	North Eastern Region Expansion Scheme-XVI (NERES-XVI) -Establishment of New Gogamukh 400/220/132kV substation and associated transmission lines.
8.	Transmission system for evacuation of power from REZ in Rajasthan (7 GW) Ph-IV (Part1) (Bikaner Complex)
9.	Transmission Scheme for integration of Renewable Energy Zone (Phase-II) fromKoppal-II (1 GW) (Phase-A & B) and Gadag-II (1 GW) (Phase- A) in Karnataka
10.	Transmission System for evacuation of additional 7 GW RE Power from Khavda RE Park under Phase-III
11.	Transmission scheme for evacuation of power from Dhule (2 GW) REZ
12.	Western Region Expansion Scheme XXXIII (WRES-XXXIII) -Establishment of 2x1500 MVA, 765/400kV and 2x500 MVA, 400/220 kV S/s at Karera and associated transmission line.
13.	Transmission system for evacuation of power from Shongtong Karcham HEP (450 MW) and Tidong HEP (150 MW)
14.	Transmission System for Evacuation of Power from RE Projects in Rajgarh(1000 MW) SEZ in Madhya Pradesh Phase-II
15.	Transmission system for evacuation of power from RE projects in Solapur (1500 MW) SEZ in Maharashtra
16.	Eastern Region Expansion Scheme-XXXIV (ERES-XXXIV) -Establishment of 765/400 kV, 2x1500 MVA GIS substation at Paradeep and associated transmission lines.
17.	Western Region Network Expansion scheme in Kallam area of Maharashtra (1.25 GW) -LILO of both circuits of Parli(M) – Karjat (M)/Lonikand-II (M) 400 kV D/c line (twin moose) at Kallam PS
18.	Transmission System for Evacuation of Power from potential renewable energy zone(7 GW) in Khavda area of Gujarat under Phase-IV
19.	Transmission System for Evacuation of Power from potential renewable energy zone (8 GW) in Khavda area of Gujarat under Phase-V
20.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2 :5.5 GW) (Jaisalmer/Barmer Complex)
21.	Augmentation of transformation capacity at 400/220 kV Nalagarh S/s by 400/220 kV, 1x500 MVA ICT
22.	Augmentation of transformation capacity at 400/220 kV Bikaner-II PS by 400/220 kV, 1x500 MVA ICT
23.	Eastern Region Expansion Scheme – XXXV (ERES-XXXV)- Switching arrangement within the Rangpo (POWERGRID) GIS S/s premises such that Rangpo-Melli and Rangpo – Rangit 132 kV S/c lines can be bypassed at Rangpo S/s end
24.	Augmentation of transformation capacity at Amargarh (GIS) S/s by 1x315 MVA, 400/220 kV ICT
25.	Eastern Region Expansion Scheme – XXXVI (ERES-XXXVI) - Installation of 220/132 kV, 1x200 MVA (4th) ICT at Ara (POWERGRID) S/s
26.	Augmentation of transformation capacity by 1x500 MVA, 400/220 kV ICT at Mysore substation in Karnataka
27.	Eastern Region Expansion SchemeXXXVII (ERESXXXVII)- Creation of 220 kV level in GIS at Lakhisarai (POWERGRID) 400/132 kV S/s with installation of 400/220 kV, 2x500 MVA ICTs
28.	Augmentation of transformation capacity by 1x1500 MVA, 765/400 kV ICT at Maheshwaram substation in Telengana

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3642
ANSWERED ON 10.08.2023

ELECTRICITY CONNECTIONS UNDER SAUBHAGYA YOJANA

†3642. SHRIMATI JYOTSNA CHARANDAS MAHANT:

Will the Minister of POWER
be pleased to state:

(a) the current status of electricity connections in all poor households in rural and urban areas of the country under Pradhan Mantri Sahaj Bijli Har Ghar Yojana-SAUBHAGYA;

(b) the total number of households benefited under the said yojana in Korba Lok Sabha Constituency of Chhattisgarh, district-wise;

(c) the details of the funds allocated and its actual utilisation under the said yojana during the last three years; and

(d) whether 24X7 power supply has been ensured by the Government in all the urban and rural areas of the country and if so, the details thereof?

A N S W E R

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 to achieve 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 willing 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% households' 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.

.....2.

Thereafter, the 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. The scheme stands closed on 31.03.2022. As per the SAUBHAGYA portal, a total of 29 States/UTs participated during scheme period. The State-wise details of Household electrification in the Country under SAUBHAGYA are as per Annexure-I.

(b) : Total number of households benefitted since launch of Saubhagya scheme including additional households electrified under DDUGJY in Korba Lok Sabha Constituency (covering Korba, Koriya, Gaurela-Pendra-Marwahi* areas) of Chhattisgarh, district-wise is as follows:

District	No of Households electrified from 11.10.2017 to 31.03.2019 as per Saubhagya Portal	Additional households covered under Saubhagya 01.04.2019 to 31.03.2021	Addl. Households electrified under DDUGJY during 2021-22
Korba	30278	1004	0
Koriya	23590	1507	187
Bilaspur*	51156	0	0

***Gaurela-Pendra-Marwahi district was carved out of Bilaspur district and inaugurated in February, 2020.**

(c) : There was no upfront allocation of funds for any State/District under Saubhagya scheme. 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 the grant disbursed and utilized under Saubhagya during the last three years is at Annexure-II.

(d) : 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 to help them to achieve the objective of providing uninterrupted power supply to all households.

For 24x7 power supply, all the States and the Union Territories (UTs) have signed MoUs with the Central Government 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 notified the Electricity (Rights of Consumers) Rules, 2020 which mandates 24x7 power supply to all consumers by the distribution licensee.

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ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3642 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State-wise electrification of households since launch of Saubhagya Scheme including Additional Households achievement under DDUGJY							
Sl. No.	Name of the State/UT	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		Grand Total (A+B)
			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	Households electrified (as on 31.03.2022) (B)	
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
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

***Electrified prior to Saubhagya and not funded under Saubhagya**

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ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 3642 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State-wise Grant disbursed and utilized under Saubhagya Scheme during the financial year 2020-21 to 2022-23.

(Rs. in crore)

Sl. No.	Name of the State/UT	Grant disbursed and utilized				
		2020-21	2021-22	2022-23	Total	Funds Utilised by the States
1	Arunachal Pradesh	0	7	0	7	7
2	Assam	118	21	0	139	139
3	Bihar	17	24	0	41	41
4	Chhattisgarh	42	43	0	85	85
5	Haryana	0	5	0	5	5
6	Himachal Pradesh	0	0	0	-	-
7	J&K	0	0	0	-	-
8	Jharkhand	60	68	0	128	128
9	Karnataka	0	9	0	9	9
10	Kerala	13	12	0	25	25
11	Ladakh	0	0	0	-	-
12	Madhya Pradesh	6	140	0	146	146
13	Maharashtra	0	20	0	20	20
14	Manipur	12	5	0	17	17
15	Meghalaya	1	19	0	20	2
16	Mizoram	6	1	0	7	7
17	Nagaland	0	15	0	15	15
18	Orissa	0	78	0	78	78
19	Punjab	0	0	0	1	1
20	Rajasthan	101	24	0	125	125
21	Sikkim	1	0	0	1	1
22	Telangana	0	1	0	1	1
23	Tripura	0	22	0	22	22
24	Uttar Pradesh	52	350	0	402	402
25	Uttarakhand	1	6	0	7	7
26	West Bengal	16	46	0	62	62
	Total	448	915	0	1,363	1,345

Note: Saubhagya scheme was launched in October, 2017

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3660
ANSWERED ON 10.08.2023

GREEN ENERGY FOR POWER SUPPLY

3660. SHRI JAMYANG TSERING NAMGYAL:

Will the Minister of POWER
be pleased to state:

(a) whether the Government has provided electricity to all the parts of the country including islands, hilly areas and forest residents and if so, the details thereof;

(b) whether the Government has alternative power generation system in case of emergency situations such as floods/shortages of existing resources and if so, the details thereof;

(c) whether the Government has taken action to generate Green Energy for power supply and if so, the details thereof and if not, the reasons therefor; and

(d) the details of Green energy supply in UT of Ladakh?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : Government of India launched Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), in December, 2014 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 and electrification of villages across the country. As reported by the States/UTs, all the inhabited un-electrified villages as per Census, 2011 stood electrified by 28th April, 2018 across the country under DDUGJY. A total of 18,374 villages were electrified under the scheme. The scheme stands closed as on 31-03-2022. The State/UT-wise details of villages electrified under DDUGJY are as per Annexure-I.

.....2.

Moreover, Pradhan Mantri Sahaj Bijli Har Ghar Yojana – SAUBHAGYA was launched by Government of India 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, a total of 2.86 crore households have been electrified. The scheme stands closed on 31.03.2022.The State-wise details of Household electrification in the Country under SAUBHAGYA are as per Annexure-II.

(b) : Presently, the power system of the country is running as a single synchronous grid. Hence, in case of any emergency situation in any part of the country, the power can be extended from the healthy part of the remaining grid. Further, in case of flood/cyclone affecting any generating station or transmission lines in any part of the country due to tower collapse / bending, Emergency Restoration System (ERS) towers are being used as a temporary measure to ensure continuous supply of power to the affected area(s) from the healthy part of the grid.

As on date, total all India installed capacity is around 422 Gigawatt whereas all India peak demand has so far touched a maximum of 223 Gigawatt. The country has adequate capacity to meet the electricity demand without any shortage. Details of state-wise installed capacity are attached as Annexure-III.

(c) : Ministry of New and Renewable Energy (MNRE) has taken various steps for enhancing the renewable energy capacity in the country, namely, Grid Connected Rooftop Solar Scheme, Central Public Sector Undertaking (CPSU) Scheme Phase-II (Government Producer Scheme) for grid-connected Solar Photovoltaic (PV) Power Projects by the Government Producers, Production Linked Incentive (PLI) Scheme 'National Programme on High Efficiency Solar PV Modules', Solar Park Scheme, PM-KUSUM scheme, Green Energy Corridor Scheme, Biomass Programme, Waste to Energy Programme, Biogas Programme, Research and Development (R&D) programme, and Incentive Schemes for Green Hydrogen production and Electrolyser Manufacturing.

.....3.

(d) : UT of Ladakh has reported that the UT has 45 Megawatt and 44 Megawatt Alchi and Chutuk Hydro Electricity Plant (HEP) of NHPC Ltd. under operation.

Following green energy projects are also under development stage in Ladakh, the details are as given below:

i. **Solar Energy Corporation of India (SECI) Ltd. is developing 50 *Megawatt peak* (MWp) Solar project at Leh under Prime Minister's Development Package (PMDP).**

ii. **Oil and Natural Gas Corporation (ONGC) Ltd. is developing geothermal energy at Puga and Changthang in Ladakh.**

iii. **A 13 Gigawatt Solar Wind hybrid energy park is being developed at pang area of Changthang. SECI and Power Grid are preparing Detailed Project Report (DPR)/ Surveys for energy Park/ transmission system respectively.**

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ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO.3660 ANSWERED IN THE LOK SABHA ON 10.08.2023

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

Sl. No.	State/UT	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

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ANNEXURE-II

ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO.3660 ANSWERED IN THE LOK SABHA ON 10.08.2023

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State-wise electrification of households since launch of Saubhagya Scheme including Additional Households achievement under DDUGJY							
Sl. No.	State/UT	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		Grand Total(A+B)
			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	Households electrified(as on 31.03.2022) (B)	
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
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

*Electrified prior to Saubhagya and not funded under Saubhagya

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ANNEXURE-III

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO.3660 ANSWERED IN THE LOK SABHA ON 10.08.2023

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Detail of State-wise, fuel-wise Installed Capacity (As on 30.06.2023)

(All values in MW)

Region	State	Mode wise breakup							Grand Total
		Thermal				Nuclear	Renewable		
		Coal	Lignite	Gas	Diesel		Hydro	RES*(MNRE)	
Northern Region	Delhi	3649	0	2115	0	103	723	312	6903
	Haryana	8817	0	582	0	101	2325	1440	13264
	Himachal Pradesh	145	0	0	0	29	3249	1086	4509
	Jammu & Kashmir and Ladakh	577	0	304	0	68	2322	264	3535
	Punjab	8214	0	150	0	197	3818	1891	14271
	Rajasthan	11569	1580	775	0	557	1942	23182	39604
	Uttar Pradesh	20388	0	1030	0	289	3424	4792	29923
	Uttarakhand	602	0	520	0	31	2096	934	4183
	Chandigarh	45	0	15	0	8	102	64	233
	Central - Unallocated	1431	0	291	0	237	751	0	2711
	Total	55437	1580	5781	0	1620	20752	33966	119135
Western Region	Goa	492	0	68	0	34	2	36	632
	Daman & Diu	165	0	43	0	10	0	41	259
	Gujarat	17298	1400	6587	0	797	772	21237	48092
	Madhya Pradesh	15913	0	332	0	382	3224	6125	25975
	Chhattisgarh	12222	0	0	0	92	233	1314	13860
	Maharashtra	25254	0	3513	0	879	3332	12973	45951
	Dadra & Nagar Naveli	422	0	66	0	13	0	5	507
	Central - Unallocated	2835	0	198	0	333	0	0	3366
	Total	74602	1400	10806	0	2540	7563	41730	138641
Southern Region	Andhra Pradesh	11231	189	4067	37	127	1674	9378	26703
	Telangana	9439	61	832	0	149	2480	5135	18095
	Karnataka	9948	486	0	25	698	3632	17552	32341
	Kerala	2059	325	534	160	362	1864	1134	6438
	Tamil Nadu	12754	1959	1027	212	1448	2178	18259	37837
	NLC	0	66	0	0	0	0	0	66
	Puducherry	141	118	33	0	86	0	43	421
	Central - Unallocated	1426	434	0	0	450	0	0	2310
	Total	46997	3640	6492	434	3320	11827	51501	124211

Eastern Region	Bihar	7397	0	0	0	0	110	400	7907
	Jharkhand	2373	0	0	0	0	191	128	2692
	West Bengal	8650	0	80	0	0	1396	636	10762
	DVC	3037	0	0	0	0	186	0	3223
	Odisha	5020	0	0	0	0	2163	634	7817
	Sikkim	14	0	0	0	0	633	60	707
	Central - Unallocated	1737	0	0	0	0	85	0	1822
	Total	28229	0	80	0	0	4764	1857	34930
North-Eastern Region	Assam	403	0	742	0	0	522	192	1858
	Arunachal Pradesh	37	0	47	0	0	545	145	773
	Meghalaya	0	0	110	0	0	417	50	578
	Tripura	0	0	487	0	0	68	34	590
	Manipur	16	0	82	36	0	87	18	238
	Nagaland	32	0	74	0	0	66	36	208
	Mizoram	31	0	60	0	0	98	76	265
	Central - Unallocated	113	0	64	0	0	140	0	316
	Total	631	0	1665	36	0	1944	551	4827
Islands	Andaman & Nicobar	0	0	0	93	0	0	35	128
	Lakshadweep	0	0	0	27	0	0	3	30
	Total	0	0	0	120	0	0	38	158
All India		205895	6620	24824	589	7480	46850	129643	421902

Source: Monthly Installed Capacity Report – Central Electricity Authority

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GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.3678
ANSWERED ON 10.08.2023

POLLUTION CAUSED BY COAL BASED POWER PLANTS

†3678. SHRI NIHAL CHAND:

Will the Minister of POWER
be pleased to state:

(a) whether the Government has conducted any evaluation/assessment of pollution caused by coal based power plants in the country;

(b) if so, the details thereof along with other related impact of the pollution assessed during the last two years;

(c) the details of effective steps being taken by the Government to control pollution caused by the coal based power plants;

(d) whether the Government has taken any steps to reduce or minimise dependence on coal by the power plants in the country; and

(e) if so, the details thereof?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) to (c) : The Coal based Thermal Power Plants (TPPs) are required to ensure compliance of the emission norms, as notified by Ministry of Environment, Forest & Climate Change (MoEF&CC) and directions given by the Central Pollution Control Board (CPCB), from time to time. MoEF&CC vide Notification dated 31.03.2021 has stipulated timelines for compliance to emission norms by TPPs. Compliance with these norms is regularly monitored by the CPCB and State agencies.

The TPPs are adopting supercritical and ultra-supercritical technologies in order to improve efficiency, thereby reducing coal consumption and emissions. A total capacity of Supercritical units of 63830 MW (92 Units) and Ultra-supercritical of 1320 MW (2 units) have been commissioned till 31.07.2023.

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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 8th 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, which mandates 5% biomass co-firing in Thermal Power Plants (TPPs) from 2024-25. This obligation shall increase to 7% from 2025-26.

(d) & (e) : The Government of India has set a target to achieve 500 GW of cumulative Installed electricity capacity from non-fossil sources by 2030.

The Government is taking following measures to increase share of renewable energy and to promote energy efficiency in all spheres of life: -

(i) Ministry of Power issued scheme for "Flexibility in Generation and Scheduling of Thermal/ Hydro Power Stations through bundling with Renewable Energy and Storage Power" in April, 2022 providing for replacement of both thermal and hydropower with renewable energy. The scheme increases RE capacity addition, reduces thermal emissions, increases uptake of Renewable Energy by distribution licensees, and facilitates in fulfilling Renewable Purchase Obligations (RPO).

(ii) Green Energy Open Access Rules 2022 for promotion of renewable energy.

(iii) Renewable Purchase Obligation (RPO) declaration up to the year 2029-30.

(iv) Green Term Ahead Market (GTAM) to facilitate sale of Renewable Energy Power through exchanges.

(v) Waiver of Inter State Transmission System (ISTS) charges for inter-State sale of solar and wind power for projects to be commissioned by 30 June 2025.

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

(vii) Laying of new transmission lines and creating new sub-station capacity under the Green Energy Corridor Scheme for evacuation of renewable power.

(viii) Schemes such as Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM), Solar Rooftop Phase II, 12000 Mega Watt (MW) Central Public Sector Undertaking (CPSU) Scheme Phase II, etc.

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