GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3826**
ANSWERED ON 05.04.2022

**SAUBHAGYA SCHEME**

**3826 DR. AMEE YAJNIK:**

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

(a) the details of the works done in the State of Gujarat under SAUBHAGYA scheme;

(b) the amount sanctioned and allotted and the amount spent for this work during the last three years, State-wise;

(c) the number of households given electricity connections in Gujarat in the last five years;
and

(d) how many villages of the country including Gujarat are to be supplied electricity at present?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) to (c) :** 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 willing un-electrified households in rural areas and all willing poor households in urban areas in the country including Gujarat. State Government of Gujarat has reported that most of the houses were already electrified in the State of Gujarat before the launch of Saubhagya scheme. As electrification of households is a dynamic process, the State of Gujarat has reported electrification of 41,317 households since the launch of Saubhagya, up to 31.03.2019. Year-wise details of households electrified under various schemes of State Government of Gujarat are as under :

| Year | Number of Connections |
|---|---|
| 2016-17 | 68680 |
| 2017-18 | 61515 |
| 2018-19 | 68939 |
| 2019-20 | 71307 |
| 2020-21 | 57095 |
| 2021-22 (Feb-22) | 47236 |
| Total | 374772 |

There is no upfront allocation of funds for any State/District under Saubhagya scheme. Funds are released for sanctioned projects in instalments based on the utilization of the amount released in the previous instalments. The State/UT-wise details of funds allocated and funds spent under Saubhagya, during the last three years, are presented at **Annexure.**

**(d) :** As reported by the States, all the inhabited un-electrified census villages across the country stood electrified on 28th April, 2018.

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**ANNEXURE**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 3826 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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State/UT-wise Sanctioned Cost and Grant disbursed under Saubhagya Scheme during the financial year 2018-19 to 2020-21:

**Rs. in crore**

| SI. No. | Name of the States/UTs | Sanctioned cost | Project Closure Cost | Grant Released to the States/UTs under Saubhagya | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 2018-19 | 2019-20 | 2020-21 | Total | Funds Utilized |
| 1 | Arunachal Pradesh | 323 | | 139 | 14 | - | 153 | 153 |
| 2 | Assam | 973 | 898 | 403 | 121 | 118 | 642 | 642 |
| 3 | Bihar | 926 | 816 | 199 | 136 | 17 | 352 | 352 |
| 4 | Chhattisgarh | 648 | 654 | 219 | 32 | 42 | 293 | 293 |
| 5 | Haryana | 18 | 14 | - | 3 | - | 3 | 3 |
| 6 | Himachal Pradesh | 6 | 2 | 1 | 3 | - | 4 | 4 |
| 7 | J&K | 128 | | 45 | - | - | 45 | 45 |
| 8 | Jharkhand | 887 | 472 | 83 | 4 | 60 | 147 | 147 |
| 9 | Karnataka | 79 | 80 | - | 40 | - | 40 | 40 |
| 10 | Kerala | 90 | 88 | - | 26 | 13 | 39 | 39 |
| 11 | Ladakh | 5 | | 6 | - | - | 6 | 6 |
| 12 | Madhya Pradesh | 873 | 738 | 147 | - | 6 | 153 | 153 |
| 13 | Maharashtra | 406 | 363 | 140 | 43 | - | 183 | 183 |
| 14 | Manipur | 121 | | 35 | 33 | 12 | 80 | 80 |
| 15 | Meghalaya | 276 | 242 | 98 | 88 | 1 | 187 | 187 |
| 16 | Mizoram | 46 | 46 | 35 | - | 6 | 41 | 41 |
| 17 | Nagaland | 64 | 60 | 34 | - | - | 34 | 34 |
| 18 | Odisha | 525 | 430 | 168 | - | - | 168 | 149 |
| 19 | Punjab | 2 | 1 | - | - | 0 | 0 | 0 |
| 20 | Rajasthan | 663 | 502 | 103 | 76 | 101 | 280 | 260 |
| 21 | Sikkim | 2 | 2 | - | 1 | 1 | 2 | 2 |
| 22 | Telangana | 35 | 28 | - | 15 | - | 15 | 15 |
| 23 | Tripura | 418 | 307 | 237 | 8 | 0 | 245 | 242 |
| 24 | Uttar Pradesh | 6,188 | 2,924 | 523 | 26 | 52 | 601 | 571 |
| 25 | Uttarakhand | 149 | 52 | 22 | 7 | 1 | 30 | 28 |
| 26 | West Bengal | 259 | 226 | 73 | 20 | 16 | 109 | 106 |
| | **Total** | **14,109** | **8,945** | **2,709** | **696** | **448** | **3,853** | **3,775** |

Note: Saubhagya scheme was launched in October, 2017.

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3827**
ANSWERED ON 05.04.2022

**LOSSES INCURRED BY DISCOMS**

3827 **SHRI K.C. RAMAMURTHY:**

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

(a) the details of losses incurred by DISCOMS since last bailout package given by the Ministry, State DISCOM-wise and year-wise;

(b) whether it is a fact that the Ministry is going to give ₹ 90,000 crores to DISCOMS to take care of their technical and commercial losses;

(c) the reasons that DISCOMS are incurring the above losses;

(d) the details of conditions put by the Ministry to avail the above ₹ 90,000 crores financial help from the Ministry; and

(e) the details of the States that have installed prepaid smart meters?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) to (d) :** As per their latest 'Report on Performance of State Power Utilities' for the year 2019-20, published by Power Finance Corporation (PFC) Ltd., the annual Aggregate Technical & Commercial (AT&C) losses for the country was 20.93%. The State-wise and year-wise details of AT&C losses are given at **Annexure-I**.

High losses are primarily because of tariffs being non-reflective of costs; poor billing and collection efficiencies; non-payment of electricity dues by State Government Departments; and non-payment/short payment by the State Government against the subsidies announced by them. All these aspects are related to deficiencies in the governance of DISCOMs owned by the State Governments.

In order to tide over the liquidity problems of the power sector, exacerbated by the outbreak of COVID-19, the Government of India had announced a Liquidity Infusion Scheme as part of Atmanirbhar Bharat Abhiyan on 13th May, 2020. Under this intervention, Rural Electrification Corporation (REC) and Power Finance Corporation (PFC) are extending special long term transition loans up to 10 years to DISCOMs for liquidating outstanding dues (as on 30.06.2020) of CPSE Gencos & Transcos, IPPs and RE generators. So far, Loans to the extent Rs.1,12,087 Crore have been disbursed under this initiative. The disbursement under the long term transition loans has been linked with DISCOMs undertaking specified reform measures. The conditions imposed for availing this liquidity injection are attached as **Annexure-II.**

**……2.**

Further, the Central Government have approved a "Revamped Distribution Sector Scheme - A Reforms based and Results linked Scheme" with the objective of improving the quality and reliability of power supply to consumers through a financially sustainable and operationally efficient distribution sector. The Scheme aims to reduce the AT&C losses to pan-India levels of 12-15% and Average Cost of Supply (ACS) - Average Revenue Realized (ARR) gap to zero by 2024-25. The Scheme has an outlay of Rs.3,03,758 Crore with GBS of 97,631 Crore from the Central Government. The Scheme has two major components: Part 'A' – Financial support for up gradation of the Distribution Infrastructure and support for prepaid smart metering systems and Part 'B' – Training & Capacity Building and other Enabling & Supporting Activities. Recognizing that various DISCOMs are at different performance levels – both operational and financial, instead of adopting a one size fits all approach, the scheme envisages customized action plans as per the needs of the individual DISCOMs.

The scheme envisages a Results Evaluation Framework incorporating performance against result parameters and trajectories for improvement. The Results Evaluation Framework has two components (i) Pre-qualifying criteria; and (ii) Result Evaluation Matrix, details of which are enclosed as **Annexure-III & IV** respectively. Funds for a particular year would be released upon DISCOMs meeting the pre-qualifying criteria and achievement of at least 60% marks on the evaluation matrix.

**(e) :** The details of smart meters, including prepaid smart meters already installed in the country are available as **Annexure-V.**

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**ANNEXURE-I**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 3827 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**States/UTs-wise and Year-wise details of AT&C Losses**

| | **2019-20** |
|---|---|
| **State/UT Sector** | **21.73** |
| **Andaman & Nicobar Islands** | **22.71** |
| Andaman & Nicobar PD | 22.71 |
| **Andhra Pradesh** | **10.77** |
| APEPDCL | 6.64 |
| APSPDCL | 13.17 |
| **Arunachal Pradesh** | **45.71** |
| Arunachal PD | 45.71 |
| **Assam** | **23.37** |
| APDCL | 23.37 |
| **Bihar** | **40.38** |
| NBPDCL | 29.50 |
| SBPDCL | 48.64 |
| **Chandigarh (Non-Uday UT)** | **4.60** |
| Chandigarh PD | 4.60 |
| **Chhattisgarh** | **23.68** |
| CSPDCL | 23.68 |
| **Dadra & Nagar Haveli** | **3.56** |
| DNHPDCL | 3.56 |
| **Daman & Diu** | **4.07** |
| Daman & Diu PD | 4.07 |
| **Goa** | **13.99** |
| Goa PD | 13.99 |
| **Gujarat** | **11.95** |
| DGVCL | 6.22 |
| MGVCL | 11.31 |
| PGVCL | 19.22 |
| UGVCL | 6.88 |
| **Haryana** | **18.19** |
| DHBVNL | 16.37 |
| UHBVNL | 20.68 |
| **Himachal Pradesh** | **11.68** |
| HPSEBL | 11.68 |
| **Jammu & Kashmir** | **60.46** |
| JKPDD | 60.46 |
| **Jharkhand** | **36.96** |
| JBVNL | 36.96 |

| | |
|---|---|
| **Karnataka** | **17.59** |
| BESCOM | 17.91 |
| CHESCOM | 21.72 |
| GESCOM | 17.87 |
| HESCOM | 15.31 |
| MESCOM | 15.33 |
| **Kerala** | **14.47** |
| KSEBL | 14.47 |
| **Lakshadweep** | **14.28** |
| Lakshadweep ED | 14.28 |
| **Madhya Pradesh** | **30.38** |
| MPMaKVVCL | 37.17 |
| MPPaKVVCL | 20.93 |
| MPPoKVVCL | 33.89 |
| **Maharashtra** | **19.92** |
| MSEDCL | 19.92 |
| **Manipur** | **20.27** |
| MSPDCL | 20.27 |
| **Meghalaya** | **34.32** |
| MePDCL | 34.32 |
| **Mizoram** | **20.66** |
| Mizoram PD | 20.66 |
| **Nagaland** | **52.93** |
| Nagaland PD | 52.93 |
| **Odisha (Non-Uday State)** | **28.94** |
| CESU | 29.03 |
| NESCO Utility | 24.45 |
| SOUTHCO Utility | 36.05 |
| WESCO Utility | 28.81 |
| **Puducherry** | **18.45** |
| Puducherry PD | 18.45 |
| **Punjab** | **14.35** |
| PSPCL | 14.35 |
| **Rajasthan** | **29.85** |
| AVVNL | 22.08 |
| JdVVNL | 38.26 |
| JVVNL | 27.83 |
| **Sikkim** | **28.88** |
| Sikkim PD | 28.88 |
| **Tamil Nadu** | **15.00** |
| TANGEDCO | 15.00 |
| **Telangana** | **21.54** |
| TSNPDCL | 34.08 |
| TSSPDCL | 15.57 |

| | |
|---|---|
| **Tripura** | **37.85** |
| TSECL | 37.85 |
| **Uttar Pradesh** | **30.05** |
| DVVNL | 39.74 |
| KESCO | 15.49 |
| MVVNL | 34.14 |
| PaVVNL | 18.64 |
| PuVVNL | 34.24 |
| **Uttarakhand** | **20.35** |
| UPCL | 20.35 |
| **West Bengal (Non-Uday State)** | **20.40** |
| WBSEDCL | 20.40 |
| **Private Sector** | **8.00** |
| **Delhi** | **8.19** |
| BRPL | 8.15 |
| BYPL | 8.57 |
| TPDDL | 7.98 |
| **Gujarat** | **4.59** |
| Torrent Power Ahmedabad | 5.07 |
| Torrent Power Surat | 3.43 |
| **Maharashtra** | **9.52** |
| AEML | 9.52 |
| **Uttar Pradesh** | **9.76** |
| NPCL | 9.76 |
| **West Bengal** | **9.06** |
| CESC | 9.30 |
| IPCL | 6.06 |
| **Grand Total** | **20.93** |

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**ANNEXURE-II**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 3827 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**Conditions for availing loans under Rs.90,000 Crore liquidity infusion package announced by the Government under Atmanirbhar Bharat**

**The funding under the liquidity infusion package would be done in 2 tranches of Rs.45,000 Crore each**.

**(i) For sanction and release of tranche 1 the following undertaking will be taken from respective entities:**

(a) DISCOMs to enable digital payments of electricity bills.

(b) DISCOMs to enable self-assessment by consumers (make provision for the consumer to send meter reading by picture of the meter or SMS to facilitate provisional billing). The bills will be settled and accounted once the meter is read. The amounts paid by consumers will be set off.

(c) The respective State Governments to provide an undertaking to liquidate the payments due to DISCOMs on account of electricity dues of Government departments/attached offices in three annual installments, and also install smart prepaid or prepaid meters in Government Departments/attached offices etc. so that in future the electricity dues of DISCOMs are paid regularly. The State Governments will also undertake to clear the dues of subsidies and put in place a system such that bills for subsidies are raised by DISCOMs and paid upfront every quarter. The above undertaking will be required prior to the release of the first installment.

**(ii) For availing of tranche 2 the DISCOMs will have to submit details of implementation of the undertakings given at the time of tranche 1 and will have to give the following:**

(a) A plan, endorsed by the State Government to bring down their losses over the next three or four years. This will involve steps to reduce theft, and for bringing down the ACS-ARR gaps.

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**ANNEXURE-III**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 3827 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**Pre-qualifying Criteria to be mandatorily met by DISCOM for Further Evaluation:**

(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 TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 3827 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**Summary of Results Evaluation matrix for evaluation of DISCOM performance under RDSS**

| Sl. 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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**ANNEXURE-V**

**ANNEXURE REFERRED TO IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 3827 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**State/UT-wise data of Smart metering (as on 25-03-2022)**

| Sl. No. | State | Utility | Nos. of Smart Meters Installed | |
|---|---|---|---|---|
| | *1* | *2* | *3* | *4* |
| | | | **of Smart type** | **of Smart Prepaid type (already included in column 3)** |
| 1 | Andaman | EDANI | 36,500 | 0 |
| 2 | Andaman | EDANI | 38,400 | 0 |
| 3 | Andhra Pradesh | EPDCL | 2,000 | 0 |
| 4 | Assam | APDCL | 70,000 | 2,720 |
| 5 | | APDCL | 1,09,348 | 4,317 |
| 6 | | APDCL | 46,027 | 0 |
| 7 | | APDCL | 0 | 0 |
| 8 | | APDCL | 0 | 0 |
| 9 | | APDCL | 14,259 | 0 |
| 10 | Bihar | NBPDCL | 2,50,587 | 2,49,801 |
| 11 | | SBPDCL | 3,58,843 | 3,58,039 |
| 12 | | SBPDCL (Gram Power) | 30,500 | 30,500 |
| 13 | | IPCL | 17,100 | 17,100 |
| 14 | | BEDCPL/SPML | 1,000 | 1,000 |
| 15 | Chandigarh | CED | 23,764 | 0 |
| 16 | | CED | 0 | 0 |
| 17 | Delhi | NDMC | 63,474 | 0 |
| 18 | | TPDDL | 1,95,000 | 0 |
| 19 | Gujarat | UGVCL | 23,760 | 0 |
| 20 | Haryana | UHBVN | 10,188 | 0 |
| 21 | | SGKC Lab | 10 | 0 |
| 22 | | DHBVN | 1,74,472 | 7 |
| 23 | | UHBVN | 2,34,921 | 579 |
| 24 | Himachal Pradesh | HPSEB | 1,335 | 0 |
| 25 | | HPSEB | 75,712 | 0 |
| 26 | Jammu | JPDCL & KPDCL | 43,695 | 0 |
| 27 | Jharkhand | JBVNL | 0 | |
| 28 | Karnataka | CESCOM | 20,916 | |
| 29 | Kerala | CPT | 805 | |
| 30 | Madhya Pradesh | MP-West | 1,24,477 | 0 |

| | | | | |
|---|---|---|---|---|
| 31 | | MP-West | 1,18,836 | 0 |
| 32 | Odisha | OPTCL | 4,000 | 0 |
| 33 | | Paradip Port Trust | 500 | |
| 34 | Puducherry | PED | 28,910 | 0 |
| 35 | | PED | 1,658 | 0 |
| 36 | Punjab | PSPCL | 88,107 | 0 |
| 37 | Rajasthan | AVVNL | 68,673 | 0 |
| 38 | | AVVNL | 1,000 | 0 |
| 39 | | JaVVNL | 2,40,820 | 0 |
| 40 | | JaVVNL | 1,07,652 | 0 |
| 41 | | JaVVNL | 70,000 | 0 |
| 42 | | JdVVNL | 56,027 | 0 |
| 43 | Tamil Nadu | TANGEDCO | 99,322 | 0 |
| 44 | Tripura | TSECL | 43,081 | 0 |
| 45 | Telangana | TSSPDCL | 8,882 | 0 |
| 46 | Uttar Pradesh | IITK | 28 | 0 |
| 47 | | MVVNL | 3,78,862 | 3,337 |
| 48 | | PVVNL | 1,98,726 | 20 |
| 49 | | DVVNL | 1,47,991 | 127 |
| 50 | | PuVVNL | 3,21,433 | 1,135 |
| 51 | | KESCO | 1,07,318 | 60,266 |
| 52 | West Bengal | WBSEDCL | 5,164 | 0 |
| 53 | | CESC | 10,000 | 0 |
| | **Grand Total** | | **40,74,083** | **7,28,948** |

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3828**
ANSWERED ON 05.04.2022

**EFFORTS TO MEET THE RISE IN DEMAND FOR POWER**

**3828 DR. NARENDRA JADHAV:**

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

(a) whether Government has conducted any study on the expected surge in the demand for Power in the country by 2030, if so, the details thereof;

(b) if not, the reasons therefor;

(c) whether India's current installed capacity of wind and thermal energy are expected to meet the country's electricity demand by 2030;

(d) whether new renewable energy Power projects are being developed so as to meet increasing clean energy power demand, if so, the details thereof; and

(e) if not, the reasons therefor?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) to (e):** Central Electricity Authority (CEA) conducts Electric Power Survey (EPS) of the country every five years for estimating the electricity demand of the country on medium and long term basis as obligated under Section 73(a) of the Electricity Act, 2003. The 19$^{th}$ Electric Power Survey (EPS) Report covers electricity demand projection for the year 2016-17 to 2026-27 as well as perspective electricity demand projection for the year 2031-32 and 2036-37 for each State/UT.

India is adding to its power generation capacity. As per the study carried out by Central Electricity Authority, the All India installed capacity is likely to increase from present installed capacity of 3,95,607.86 MW as on 28.02.2022 to 8,17,254 MW as on 31.03.2030, which will be adequate to meet the electricity demand by 2030.

As on 28.02.2022, a total of about 152.899 Gigawatt (GW) of renewable energy capacity (including large hydro) has been installed in the country. The non fossil fuel based generation capacity (including renewable energy) is expected to be around 500 GW by the year 2030.

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3829**
ANSWERED ON 05.04.2022

**HEAVY CROSS-SUBSIDY IN THE POWER SECTOR**

**3829 PROF. MANOJ KUMAR JHA:**

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

(a) the current per unit price charged to industrial, commercial, domestic and agricultural customers, and comparable international prices of the same;

(b) the quantum of cross-subsidy that is given out in the process;

(c) whether Government is cognizant of the fact that due to high rate charged to industrial users, they have opted to run separate lines on their own, if so, the details thereof, including the number of industrial units that have stopped receiving power from State-run DISCOMS in the country; and

(d) the steps that Government is taking to rationalise these rates and prevent the migration of such customers?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) :** The tariff for retail supply of electricity to all consumers, including industrial, commercial, domestic and agriculture customers, is determined by the respective State Electricity Regulatory Commission.

As per the available data, the tariffs (including Govt. subsidy, if any) for domestic consumers range from 1.40 Rs./kWh to 12.65 Rs./kWh. The tariffs for Non-Domestic category range from 3.89 Rs./kWh to 14.51 Rs./kWh. The agricultural tariffs range from 0 Re./kWh to 6.28 Rs./kWh. The industrial tariffs range from 3.35 Rs./kWh to 10.0 Rs./kWh. In most of other countries, generally the tariffs for industrial consumers are lower than the tariffs for households.

**(b) :** The cross subsidy among States varies across different categories of consumers. Cross subsidy for LT Commercial category ranges between 28% to 172%, for LT industrial category it ranges between 28% to 163%, for HT Commercial Category it ranges between 100% to 178% and for HT Industrial Category it ranges between 34% to 160% .

**(c) :** The Electricity Act 2003 has enabling provisions for captive generation. Section 9(1) of the Act provides for setting up of a captive generating plant and dedicated transmission lines while Section 9 (2) provides the right to open access for the purposes of carrying electricity from such captive generating plant to the destination of use. Accordingly, Cross subsidy surcharge is not levied in case open access is provided to a person or entity who has established captive generating plant for carrying electricity to the destination for own use. Generally, industries having high demand establish their own captive power plants.

The captive power plant installed capacity in industries having demand of 1 MW and above has increased from 409.52 MW in 1948 to 76,239.36 MW in 2020 whilst the generation from captive power plants has grown from 1299.56 GWh in 1949 to 239,566.75 GWh by 2019-20.

**(d) :** The Electricity Act 2003 provides that the tariff should be cost reflective. As per National Tariff Policy, 2016, Appropriate Commission would notify a roadmap such that tariffs are brought within ±20% of the average cost of supply. Accordingly, the Central Government has been requesting the State Commissions to define a roadmap for cross-subsidy reduction and take steps to reduce such subsidy to ±20% of the Average Cost of Supply (ACoS) in compliance with the provisions of the Tariff Policy, 2016.

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3830**
ANSWERED ON 05.04.2022

**POWER FOR ALL BY 2022**

**3830 DR. L. HANUMANTHAIAH:**

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

(a) whether Government is on track to meet its promise of providing 24x7 electricity supply to all by 2022;

(b) if so, the details of progress made as on date, and if not, the reasons therefor, including setting up of a revised target and/or deadline; and

(c) the average daily power supply in rural areas and urban areas in all States and Union Territories year-wise from 2014 till date?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) to (c) :** The primary responsibility of providing 24x7 power supply to all consumers lies with the concerned Power Distribution Companies (DISCOMs).

Government of India, Ministry of Power had taken up a joint initiative during 2014 to 2017 with all States/UTs and prepared State/UT specific action plan documents for providing 24x7 power supply to all households, industrial & commercial consumers, and adequate supply of power to agricultural consumers as per State policy. This initiative was aimed at ensuring uninterrupted supply of quality power to existing consumers and providing access to electricity to all unconnected consumers by 2019 in a phased manner.

Government of India has been helping the States through its various schemes including Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development Scheme (IPDS) to achieve the objective of providing uninterrupted power supply to all households. Under the recently launched Revamped Distribution Sector Scheme (RDSS), the State Power Distribution Utilities are financially supported to strengthen Distribution infrastructure and the fund releases under the scheme are linked to initiation of reforms and achievement of results that also includes trajectories for improving electricity supply hours to urban and rural consumers.

**……..2.**

As per the independent surveys, the availability of power in surveyed areas has gone up from an average of 12 hours in 2015 to 20.50 hours in the year 2020. As per information made available by States on National Power Portal (NPP), the supply hours in urban areas and rural areas as on 30.11.2021, were 23.68 (HH.hh) & 20.92 (HH.hh). As reported by the Discoms on NPP, the Average hours of Power Supply in a Day for Rural and Urban areas during the last Three Years and the current year till November 2021(HH.hh) are as below:

| | 2018-19 | | 2019-20 | | 2020-21 | | 2021-22 (up to Nov 21) | |
|---|---|---|---|---|---|---|---|---|
| | RURAL Supply | URBAN Supply | RURAL Supply | URBAN Supply | RURAL Supply | URBAN Supply | RURAL Supply | URBAN Supply |
| All India Level | 20.7 | 23.8 | 20.8 | 23.7 | 21.2 | 23.7 | 20.9 | 23.7 |

State-wise Average hours of Power Supply in a Day for last Three Years and the current year till November 2021 (HH.hh) are given at **Annexure**.

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**ANNEXURE**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 3830 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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State-wise Average hours of Power Supply in a Day for last Three Years and the current year till November 2021 (HH.hh)

| Sl. No. | Name of the State/UT | 2018-19 | | 2019-20 | | 2020-21 | | 2021-22 (upto Nov. 21) | |
|---|---|---|---|---|---|---|---|---|---|
| | | RURAL | URBAN | RURAL | URBAN | RURAL | URBAN | RURAL | URBAN |
| | | Supply | Supply | Supply | Supply | Supply | Supply | Supply | Supply |
| 1 | Andhra Pradesh | 22.12 | 23.97 | 23.63 | 23.92 | 23.67 | 23.90 | 23.65 | 23.88 |
| 2 | Arunachal Pradesh#* | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 22.73 | | 22.73 |
| 3 | Assam#* | 0.00 | 23.73 | 0.00 | 23.80 | 0.00 | 0.00 | | 23.52 |
| 4 | Bihar | 21.22 | 0.00 | 21.85 | 23.13 | 21.88 | 23.38 | 20.36 | 23.57 |
| 5 | Chhattisgarh | 0.00 | 23.77 | 0.00 | 23.98 | 0.00 | 23.98 | 21.54 | 23.78 |
| 6 | Delhi** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 23.99 |
| 7 | Goa* | 0.00 | 0.00 | 0.00 | 22.75 | 0.00 | 23.73 | | 23.64 |
| 8 | Gujarat | 23.78 | 23.95 | 23.12 | 23.95 | 23.73 | 23.95 | 23.80 | 23.94 |
| 9 | Haryana | 19.62 | 23.28 | 19.23 | 23.27 | 19.95 | 23.40 | 19.34 | 23.60 |
| 10 | Himachal Pradesh | 15.82 | 0.00 | 15.65 | 23.85 | 15.83 | 23.85 | 12.37 | 23.90 |
| 11 | Jammu and Kashmir | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 21.98 | | 22.56 |
| 12 | Karnataka | 17.63 | 23.93 | 17.22 | 23.83 | 19.18 | 23.85 | 19.03 | 23.83 |
| 13 | Kerala | 21.22 | 0.00 | 21.97 | 23.98 | 21.00 | 23.92 | 19.62 | 23.92 |
| 14 | Madhya Pradesh | 23.33 | 23.70 | 23.03 | 23.85 | 22.65 | 23.93 | 23.06 | 23.89 |
| 15 | Maharashtra | 0.00 | 23.95 | 20.45 | 23.97 | 20.97 | 23.98 | 22.86 | 23.98 |
| 16 | Meghalaya# | 0.00 | 23.95 | 0.00 | 23.98 | 0.00 | 23.93 | | 23.91 |
| 17 | Manipur#* | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 23.65 |
| 18 | Mizoram# | 0.00 | 23.73 | 0.00 | 23.67 | 0.00 | 23.80 | | 23.86 |
| 19 | Nagaland#* | 0.00 | 0.00 | 0.00 | 23.50 | 0.00 | 22.73 | | 23.40 |
| 20 | Odisha* | 20.13 | 0.00 | 20.02 | 23.65 | 21.27 | 23.85 | 23.02 | 23.61 |
| 21 | Puducherry* | 22.10 | 0.00 | 20.45 | 0.00 | 23.15 | 0.00 | 20.31 | |
| 22 | Punjab* | 23.27 | 23.78 | 23.17 | 23.72 | 22.60 | 23.77 | 22.34 | 23.66 |
| 23 | Rajasthan | 21.30 | 23.92 | 21.30 | 23.88 | 21.37 | 23.98 | 21.86 | 23.90 |
| 24 | Tamil Nadu* | 20.77 | 0.00 | 20.97 | 23.97 | 21.52 | 0.00 | 22.14 | |
| 25 | Telangana | 22.05 | 0.00 | 22.22 | 23.92 | 22.15 | 23.92 | 21.85 | 23.93 |
| 26 | Tripura* | 19.68 | 0.00 | 19.55 | 0.00 | 19.55 | 23.98 | 20.34 | 23.91 |
| 27 | Uttar Pradesh* | 19.10 | 23.15 | 17.03 | 23.57 | 16.43 | 23.75 | 15.93 | 23.48 |
| 28 | Uttarakhand | 21.40 | 23.47 | 21.67 | 23.40 | 21.97 | 23.65 | 21.44 | 23.56 |
| 29 | West Bengal* | 18.18 | 23.97 | 23.07 | 23.97 | 23.07 | 23.98 | 23.49 | 23.80 |
| | All India | 20.7 | 23.8 | 20.8 | 23.7 | 21.2 | 23.7 | 20.9 | 23.7 |
| **Note 1** | # Only Urban data is Available | | | | | | | | |
| **Note2** | *States have not submitted data till Nov 2021 in FY 2021-22. | | | | | | | | |
| **Note3** | States/UTs not present in the list are not mapped on NPP. | | | | | | | | |
| **Note4** | **Delhi has been on boarded on NPP in April 2021. So data for previous FYs is not available on NPP. | | | | | | | | |

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3831**
ANSWERED ON 05.04.2022

**FINANCIAL ASSISTANCE FOR REVERSE PUMPED STORAGE PROJECT IN UPPER SILERU, VISAKHAPATNAM**

**3831 SHRI SUBHAS CHANDRA BOSE PILLI:**

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

(a) whether Government has taken steps to offer 30 per cent financial assistance in Reverse Pumped Storage Project in Upper Sileru, Visakhapatnam; and

(b) if so, the details thereof and if not, the reasons therefor?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) & (b) :** The project is presently at planning stage. Project proponent can avail financial assistance under Viability Gap Funding Scheme of Ministry of Finance according to applicable guidelines.

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3832**
ANSWERED ON 05.04.2022

**KUDGI AND VALLUR THERMAL POWER PLANTS**

**3832 SHRI SUBHAS CHANDRA BOSE PILLI:**

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

(a) whether Government has considered the request of the State Government of Andhra Pradesh to surrender the thermal power allocation to Kudgi and Vallur Thermal Power Plants;

(b) if so, the details thereof; and

(c) if not, the reasons therefor?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) to (c):** The State Government of Andhra Pradesh have requested to exit from the long term Power Purchase Agreements pertaining to allocation of 244 MW from Kudgi Thermal Power Plant and 86.15 MW from NTECL Vallur Thermal Power Plant. The exit from the Power Purchase Agreements will be possible only if some other State is willing to take this power on long term basis. However, on 29.03.2022, Andhra Pradesh have again indicated that they need this power to meet the rise in demand in the State.

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3833**
ANSWERED ON 05.04.2022

**COAL-FIRED POWER PLANTS**

**3833 SHRI SYED NASIR HUSSAIN:**

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

(a) the total number of coal-fired power plants in the country, State-wise;

(b) whether Government is planning to establish more coal powered plants;

(c) if so, whether any location has been identified for the same;

(d) whether Government is planning to cut down the usage of coal in relation to 2030 goal set by Government with regard to climate change; and

(e) if so, the results thereof?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) :** As on 28.02.2022, there are 181 Coal based power plants with capacity of 2,03,899.5 MW in the country. The State-wise list of these plants is given at **Annexure.**

**(b) & (c) :** As per Section 7 of the Electricity Act, 2003, any generating company may establish, operate and maintain a generating station without obtaining a license/permission under this Act, if it complies with the technical standards relating to connectivity with the grid. Accordingly, sanction of the Government is not required for setting up of thermal power projects.

**(d) & (e) :** Coal & Lignite based generation capacity is 2,10,039.5 MW out of the total capacity of 3,95,145.86 MW i.e. about 53% as on 28.03.2022. As per Optimal Generation Capacity Mix for 2029-30 prepared by Central Electricity Authority (CEA), capacity for coal & Lignite based thermal projects would be 32% of total capacity in 2030.

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**ANNEXURE**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3833 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**List of Coal/ Lignite based Stations as on 28.02.2022**

| State | No. of Plants |
|---|---|
| Haryana | 5 |
| Punjab | 5 |
| Rajasthan | 8 |
| Uttar Pradesh | 19 |
| Chhattisgarh | 26 |
| Gujarat | 9 |
| Madhya Pradesh | 14 |
| Maharashtra | 23 |
| Andhra Pradesh | 9 |
| Karnataka | 7 |
| Telangana | 7 |
| Tamil Nadu | 10 |
| Bihar | 7 |
| Jharkhand | 7 |
| Odisha | 7 |
| West Bengal | 17 |
| Assam | 1 |
| **Total** | **181** |

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3834**
ANSWERED ON 05.04.2022

**TRANSMISSION SECTOR IN THE COUNTRY**

**3834 SHRI SUJEET KUMAR:**

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

(a) the State-wise details of investments, both national and international, that have gone into the transmission sector, and whether there is an under-investment;

(b) the share of private sector enterprises that operate in the transmission sector, including the details of those enterprises that operate in the inter-State transmission of power;

(c) the details of delayed transmission projects in the country including cost and time overruns estimated for each; and
2
(d) the reforms that have been carried out in the transmission sector, and the proposed amendments pertaining to the sector that have been dropped from the Electricity (Amendment) Bill, 2021?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) :** The investment in the inter-State transmission sector in the country has been adequate to meet the requirement. All regional grids are synchronously connected and the power transmission capacity in Inter State Transmission Systems (ISTS) is adequate for smooth flow of power resulting in "One Nation – One Grid – One Frequency". At present, the inter-regional transmission capacity of the National Grid is about 1,12,250 MW (76,300 MW added since April, 2014). Considering the anticipated growth in generation and demand, sufficient transmission capacity has been planned in the country for evacuation of power from generating stations to the load centres including strengthening of existing transmission system.

During the period 2017-18 to 2021-22 (upto 25th March 2022), an investment of Rs. 1,58,844 Crore has been made by Central & State Transmission Utilities. State-wise details of the investment are at **Annexure-I**. In addition to the above, Private transmission developers have also invested an estimated Rs. 20,946 Crore during the period 2017-18 to 2021-22 (upto 28th Feb.,2022).

**(b) :** Out of 4,54,540 ckm of transmission lines (220 kV& above) commissioned in the country as on 28.02.2022, 34,843 ckm (7.66% share) of line have been commissioned by Joint Ventures / Private Sector Enterprises.

…….2.

ISTS lines developed by private sector enterprises are given below:

| Sl. No. | Name of Private Enterprises | Transmission line (in ckm) |
|---|---|---|
| 1 | Sterlite Power Transmission Ltd. | 7555 |
| 2 | Adani Transmission Ltd. | 4992 |
| 3 | Essel Infraprojects Ltd. | 707 |
| 4 | Kalpataru Power Transmission Ltd. | 948 |
| 5 | Larsen and Toubro Infra | 979 |
| 6 | Raichur Sholapur Transmission Company Ltd (RSTCL) | 208 |
| Total | | 15389 |

**(c) :** Presently 25 numbers of transmission projects being implemented by POWERGRID and Private TSPs (Transmission Service Providers) in the Inter State Transmission System are delayed as per the details given in **Annexure-II**. Based on approved revised cost estimate, the cost overrun for 17 numbers of PGCIL projects is Nil. Further, 8 numbers of delayed Private Transmission Projects are implemented on fixed tariff basis under Tariff Based Competitive Bidding.

**(d) :** During the year 2021-22, the Central Government has carried out following major reforms in the Transmission Sector :-

(i) Electricity (Transmission Planning, Development and Recovery of ISTS Transmission Charges) Rules, 2021 was issued on 01.10.2021. These Rules enable introduction of General Network Access, so that power sector utilities can have easier access to electricity transmission network across the country.

(ii) Planning and approval process of ISTS was simplified. Dual consultation for ISTS planning at regional level has been done away with and powers to approve ISTS system upto Rs. 500 crore have been delegated to Central Transmission Utility and National Committee on Transmission.

(iii) Central Transmission Utility (CTU) function has been separated from POWERGRID and Central Transmission Utility of India Ltd started function as CTU w.e.f. 1st April 2022.

(iv) Standard Bidding Documents for selection of developers for ISTS project have been revised to promote ease of doing business for private developers in transmission sector, address concerns of developers on risk sharing, encourage competition in transmission, and facilitate timely completion of transmission lines. All these provisions would bring in more private investment in transmission sector.

**There is no proposal to amend the Electricity Act 2003 with respect to provisions pertaining to transmission sector.**

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**ANNEXURE-I**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3834 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**Details of Expenditure for Transmission Schemes (220kV & above) during the 13th plan (2017-22) in Central and State sector (Rs. Crore)**

| Sl. No. | Name of the Utility | States | Transmission Works | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 (Exp. taken from NIP Transmission Projects up to 25.03.22) | Total |
| I | **Central Sector** | | | | | | | |
| | PGCIL | - | 25,791 | 25,807 | 15,940 | 10,850 | 8,202 | **86,590** |
| | DVC | - | 47 | 58 | 179 | 195 | NA | **479** |
| | **Total CS** | - | **25,838** | **25,865** | **16,119** | **11,045** | **8,202** | **87,069** |
| II | **State Sector** | | | | | | | |
| a. | **Northern Region** | | | | | | | |
| 1 | DTL | Delhi | 311 | NF | NF | 250 | 203 | **765** |
| 2 | HPPTCL | H.P | 317 | 464 | 366 | 382 | 253 | **1,782** |
| 3 | HVPNL | Haryana | 219 | NF | 405 | 505 | 29 | **1,157** |
| 4 | PDD, J&K | J&K | 55 | NF | NF | 80 | 30 | **165** |
| 5 | PSTCL | Punjab | 315 | 154 | 89 | 69 | 72 | **698** |
| 6 | RVPNL | Rajasthan | 1,773 | 1,315 | NF | NF | 306 | **3,394** |
| 7 | UPPTCL | U.P. | 3,201 | NF | 1,885 | NF | 3,209 | **8,295** |
| 8 | PTCUL | Uttarakhand | 108 | 121 | 154 | 186 | 80 | **649** |
| | **Total N.R.** | | **6,299** | **2,053** | **2,899** | **1,472** | **4,184** | **16,906** |
| b. | **Western Region** | | | | | | | |
| 1 | CSPTCL | Chhattisgarh | 169 | NF | NF | NF | 61 | **230** |
| 2 | GETCO | Gujarat | 1,102 | 1,082 | 1,182 | 1,419 | 1,018 | **5,803** |
| 3 | GOA | Goa | 0 | NF | NF | 22 | 11 | **34** |
| 4 | MPPTCL | M.P. | 991 | 1,603 | 845 | 1,535 | 406 | **5,381** |
| 5 | MSETCL | Maharashtra | 464 | NF | 596 | 767 | 406 | **2,234** |
| | **Total W.R.** | | **2,727** | **2,685** | **2,623** | **3,744** | **1,903** | **13,683** |
| c. | **Southern Region** | | | | | | | |
| 1 | APTRANSCO | A.P. | 499 | 790 | 588 | 588 | 192 | **2,657** |
| 2 | KPTCL | Karnataka | 696 | 1,180 | 1,294 | NF | 877 | **4,047** |
| 3 | KSEB | Kerala | 16 | 152 | 568 | 982 | 413 | **2,130** |
| 4 | TANTRANSCO | Tamil Nadu | 2,782 | 3,392 | 4,168 | 2,685 | 1,429 | **14,457** |
| 5 | TSTRANSCO | Telangana | 2,475 | 2,913 | NF | 1,474 | 3,120 | **9,982** |
| 6 | Puducherry | Puducherry | 11 | NF | 6 | 2 | 0 | 19 |
| | **Total S.R.** | | **6,479** | **8,427** | **6,624** | **5,732** | **6,031** | **33,293** |
| d. | **Eastern Region** | | | | | | | |
| 1 | BSPTCL | Bihar | 0 | NF | NF | NF | 131 | **131** |
| 2 | OPTCL | Odisha | 358 | 322 | 626 | 607 | 2 | **1,915** |
| 3 | JUSNL | Jharkhand | 630 | NF | NF | NF | 778 | **1,408** |
| 4 | WBSETCL | W.B. | 291 | 286 | 242 | 472 | 610 | **1,901** |
| 5 | Sikkim | Sikkim | 0 | NF | NF | NF | 542 | **542** |
| | **Total E.R.** | | **1,279** | **608** | **868** | **1,078** | **2,063** | **5,897** |
| e. | **North Eastern Region** | | | | | | | |
| 1 | Arunachal Pradesh | Ar. Pradesh | 0 | 0 | Nil | NF | 614 | **614** |
| 2 | AEGCL | Assam | 49 | 24 | 7 | 34 | 218 | **332** |
| 3 | Manipur | Manipur | 0 | NF | NF | 83 | 56 | **139** |
| 4 | MePTCL | Meghalaya | 218 | NF | Nil | NF | 114 | **332** |
| 5 | Mizoram | Mizoram | 9 | 25 | Nil | NF | 53 | **87** |
| 6 | Nagaland | Nagaland | 14 | 47 | Nil | NF | 142 | **204** |
| 7 | Tripura | Tripura | 0 | 0 | Nil | 7 | 282 | **290** |
| | **Total N-E Region** | | **290** | **97** | **7** | **124** | **1,480** | **1,997** |
| | **Total State Sector** | | **17,073** | **13,870** | **13,021** | **12,150** | **15,661** | **71,775** |
| | **Total All India** | | **42,912** | **39,735** | **29,140** | **23,194** | **23,863** | **1,58,844** |

NF: Not furnished/ updated information for subsequent years not received.

**Note**: The expenditure indicated above does not includes funds allocated by Central Government.

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**ANNEXURE-II**

**ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 3834 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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## Details of ongoing delayed ISTS Transmission Projects

| Sl. No. | Name of Project | Executing Agency | Latest Approved Schedule | Anticipated date | Approved cost in Rs. Cr. | Delay in Months |
|---|---|---|---|---|---|---|
| 1 | North East / Northern Western Interconnector–I Project Part-C : Transmission System for immediate evacuation of Power from Lower Subhansiri HEP | Power Grid | Nov'22 | Mar'23 | 1520 | 4 |
| 2 | POWERGRID Bhuj Transmission Limited | Power Grid | Aug'21 | Apr'22 | 1031 | 8 |
| 3 | Transmission System for Solar Energy Zones in Rajasthan | Power Grid | Aug'21 | Mar'22 | 2578.47 | 7 |
| 4 | Creation of 400/220 kV Substations in NCT of Delhi during 12th Plan Period (Part-A) | Power Grid | Dec'21 | Mar'22 | 1394.52 | 3 |
| 5 | Transmission system for evacuation of power from 2x500 MW Neyveli Lignite Corp. Ltd. TS-I (Replacement) (NNTPS) in Neyveli, Tamil Nadu | Power Grid | July'21 | Aug'22 | 219.66 | 13 |
| 6 | Eastern Region Strengthening Scheme - XXIII | Power Grid | Sep'21 | Mar'22 | 239.89 | 6 |
| 7 | Eastern Region strengthening Scheme – XVIII<br>SPV Name: Powergrid Medinipur Jeerat Transmission Limited | Power Grid | Dec'20 | Apr'22 | 3500 | 16 |
| 8 | Transmission System for providing connectivity to RE Projects at Bhuj-II (2000 MW ) in Gujarat | Power Grid | Aug'21 | Apr'22 | 1108 | 8 |
| 9 | Implementation of 500 MVAR Thyristor Controlled Reactor at Kurukshetra | Power Grid | Mar'22 | June'22 | 267.33 | 3 |
| 10 | Northern Region System Strengthening - XL | Power Grid | Aug'21 | Mar'22 | 572.98 | 7 |
| 11 | Scheme to control fault level in Northern Region (Phase-II) | Power Grid | Feb'22 | Apr'22 | 124.21 | 2 |
| 12 | Northern Region System Strengthening - XLI | Power Grid | Jan'22 | Mar'22 | 25.57 | 2 |
| 13 | Transmission System for Providing connectivity to RE projects at Bikaner (PG), Fatehgarh-II & Bhadla–II | Power Grid | Sep'21 | June'22 | 562.86 | 9 |
| 14 | 2 nos. of 220 kV Line Bays at Saharanpur (PG) | Power Grid | Feb'22 | Mar'22 | 5 | 1 |
| 15 | Transmission system for controlling high Short Circuit Current level at 400 kV Thiruvalam S/S | Power Grid | Nov'21 | Mar'22 | 88.39 | 4 |
| 16 | Eastern Region Strengthening Scheme - XXIII | Power Grid | Sep'21 | Mar'22 | 239.89 | 6 |
| 17 | Eastern Region Strengthening Scheme-XXIV (ERSSXXIV) | Power Grid | Mar'22 | Apr'22 | 3 | 1 |
| 18 | Additional 400 kV Feed to Goa and Additional System for Power Evacuation from Generation Projects pooled at Raigarh (Tamnar) Pool | Goa-Tamnar Transmission Project Limited (A Subsidiary of Sterlite Power TL) | Jul'22 | Mar'23 | 1,531 | 8 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 19 | WRSS – 21 Part – B – Transmission System Strengthening for Relieving Over Loadings Observed in Gujarat Intra-State System Due to Re-injections in Bhuj PS | Lakadia – Vadodara Transmission Project Limited; (A Subsidiary of Sterlite Power TL) | Aug'21 | Jun'22 | 1,865 | 9 |
| 20 | 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. (A Subsidiary of Adani TL) | Apr'20 | Jan'23 | 4,805 | 32 |
| 21 | 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. (A Subsidiary of Essel Infrapower TL) | May'20 | Mar'23 | 255 | 33 |
| 22 | Immediate evacuation for North Karanpura (3x660MW) generation project of NTPC (ERSS-XXIX). | North Karanpura Transco Ltd (ASubsidiary of Adani TL) | Feb'20 | Dec'22 | 472 | 33 |
| 23 | Transmission System for Western Region Strengthening Scheme – 21 (WRSS – 21) Part – A – Transmission System Strengthening for Relieving Over Loadings Observed in Gujarat Intra-State System Due to Re-injections in Bhuj PS | WRSS XXI(A) Transco Limited (A Subsidiary of Adani TL) | Aug'21 | Jun'22 | 1,090 | 9 |
| 24 | Transmission System for Transmission System Associated with RE Generations at Bhuj-II, Dwarka & Lakadia | Lakadia Banaskantha Transco Limited (A Subsidiary of Adani TL) | Feb'22 | Jun'22 | 1,052 | 4 |
| 25 | 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 | Jam Khambaliya Transco Limited (A Subsidiary of Adani TL) | Nov'21 | Jun'22 | 394 | 7 |

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3835**
ANSWERED ON 05.04.2022

**PERMISSIONS TO NEW COAL BASED POWER PLANTS IN THE COUNTRY**

**3835 DR. ANBUMANI RAMADOSS:**

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

(a) whether Government has any policy proposal to stop issuing new permissions to coal based power plants in the country, if so, the details thereof; and

(b) whether Government has any policy proposal for time bound closure of already existing coal based power plants to honour its commitment to UN to contain global climate change, if so, the details of timeline thereof?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) & (b) :** As per Section 7 of the Electricity Act, 2003, any generating company may establish, operate and maintain a generating station without obtaining a license/permission, if it complies with the technical standards relating to connectivity with the grid. Accordingly, sanction of the Government is not required for setting up of thermal power projects. Similarly, phasing out/retirement of units is decided by Power generating companies based on their own techno-economic and environmental reasons.

The present Coal & Lignite based generation capacity is 2,10,039.5 MW out of total capacity of 3,95,145.86 MW i.e. about 53% (as on 28.03.2022). As per Optimal Generation Capacity Mix for 2029-30 prepared by Central Electricity Authority (CEA), capacity for coal based thermal power projects would be 267 GW in 2030 out of total capacity of 817 GW i.e. about 32%.

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3836**
ANSWERED ON 05.04.2022

**INSTALLATION OF HYDROELECTRIC POWER PLANTS ACROSS THE COUNTRY**

**3836 DR. KANIMOZHI NVN SOMU:**

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

(a) the details of plans proposed by Government for the installation of hydroelectric power plants across the country with the objective of reducing pollution, State-wise;

(b) the details of hydroelectric and thermal power plants installed in Tamil Nadu during the last three years, district-wise; and

(c) the details of progress of such projects undertaken in Tamil Nadu and the estimated time frame within which these are likely to be completed?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) :** As per Section 8 (1) of Electricity Act, 2003, any generating company intending to set-up a hydro generating station involving capital expenditure of more than 1000 Cr. is required to get its project cleared by the Central Electricity Authority.

As per information available in CEA, 98 HEPs with aggregate installed capacity of 58,196.5 MW are in pipeline in the country at various stages. The present status of these HEPs is as under:

- 31 HEPs with aggregate installed capacity of 21,065 MW are at Survey and Investigation stage. Details are given at **Annexure-I.**

- Detailed Project Reports (DPRs) *of 2 HEPs with aggregate installed capacity of 1,700 MW are* at examination stage *in CEA for concurrence.* Details are given at **Annexure-II.**

- DPRs *of 29 HEPs with aggregate installed capacity of 22,768 MW have been concurred by CEA and yet to be taken up for construction for various reasons.* Details are given at **Annexure-III.**

- 36 HEPs (above 25 MW) with aggregate installed capacity of 12,663.5 MW are under construction in the country. Details are given at **Annexure-IV.**

**(b) :** No HEP was installed during last three years in the State of Tamil Nadu. However, 3 Thermal Power Projects (TPPs) with aggregate installed capacity of 1,525 MW have been commissioned during last three years in the State. Details are given at **Annexure-V.**

**(c) :** The details of under construction power projects in the State of Tamil Nadu alongwith their expected date of commissioning are given at **Annexure-VI.**

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**ANNEXURE-I**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3836 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**As on 30.03.2022**

**Hydro Electric Projects under Survey and Investigation, being coordinated by Central Electricity Authority**

| Sl. No. | Name of Project | State | Developer | Type | Sector | Installed Capacity (MW) |
|---|---|---|---|---|---|---|
| 1 | Uri-I (Stage-II) | Jammu &Kashmir | NHPC Ltd. | ROR | Central | 240 |
| 2 | Dulhasti Stage-II | Jammu & Kashmir | NHPC Ltd. | ROR | Central | 260 |
| 3 | Luhri Stage-II | Himachal Pradesh | SJVN Ltd. | ROR | Central | 172 |
| 4 | Jangi Thopan Powari | Himachal Pradesh | SJVN Ltd. | ROR | Central | 804 |
| 5 | Purthi | Himachal Pradesh | SJVN Ltd. | ROR | Central | 232 |
| 6 | Bardang | Himachal Pradesh | SJVN Ltd. | ROR | Central | 175 |
| 7 | Sachkhas | Himachal Pradesh | SJVN Ltd. | ROR | Central | 288 |
| 8 | Sirkari Bhyol Rupsiabagar | Uttarakhand | UJVNL | ROR | State | 120 |
| 9 | Bokang Bailing | Uttarakhand | THDC India Ltd. | ROR | Central | 200 |
| 10 | Devsari | Uttarakhand | SJVN Ltd. | ROR | Central | 194 |
| 11 | Anjaw | Arunachal Pradesh | Lohit Urja Pvt. Ltd. | ROR | Private | 270 |
| 12 | Demwe Upper St-I | Arunachal Pradesh | Lohit Urja Pvt. Ltd. | ROR | Private | 270 |
| 13 | Niare | Arunachal Pradesh | Andra Power Private Limited | ROR | Private | 860 |
| 14 | Myntdu Leshka Stage-II | Meghalaya | MePGCL | ROR | State | 210 |
| 15 | Upper Indravati | Odisha | OHPCL | PSP | State | 600 |
| 16 | Balimela | Odisha | OHPCL | PSP | State | 500 |
| 17 | Upper Kolab | Odisha | OHPCL | PSP | State | 320 |
| 18 | Sharavathy | Karnataka | KPCL | PSP | State | 2000 |
| 19 | Saundatti | Karnataka | Greenko | PSP | Private | 1260 |
| 20 | MP 30 Gandhi Sagar | Madhya Pradesh | Greenko | PSP | Private | 1440 |
| 21 | Kodayar | Tamil Nadu | TANGEDCO | PSP | State | 500 |
| 22 | Sillahalla St-I | Tamil Nadu | TANGEDCO | PSP | State | 1000 |
| 23 | Upper Sileru | Andhra Pradesh | APGENCO | PSP | State | 1350 |
| 24 | Kurukutti | Andhra Pradesh | NREDCAP | PSP | State | 1200 |
| 25 | Karrivalasa | Andhra Pradesh | NREDCAP | PSP | State | 1000 |
| 26 | Gandikota | Andhra Pradesh | NREDCAP | PSP | State | 1000 |
| 27 | Owk | Andhra Pradesh | NREDCAP | PSP | State | 800 |
| 28 | Somasila | Andhra Pradesh | NREDCAP | PSP | State | 900 |
| 29 | Chitravathi | Andhra Pradesh | NREDCAP | PSP | State | 500 |
| 30 | Yerravaram | Andhra Pradesh | NREDCAP | PSP | State | 1200 |
| 31 | Warasagaon | Maharashtra | WRD, Maharashtra | PSP | State | 1200 |
| | **Total** | | | | | **21065** |

Note: ROR- Run of River

PSP- Pumped Storage Project

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**ANNEXURE-II**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3836 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**As on 30.03.2022**

**Hydro Electric Schemes under Examination in Central Electricity Authority for concurrence**

| Sl. No. | Name of the Project | State | Sector | Developer | Installed Capacity (MW) |
|---|---|---|---|---|---|
| 1. | Dugar HE Project | Himachal Pradesh | Central | NHPC | 500 |
| 2. | Pinnapuram Standalone PSP | Andhra Pradesh | Private | Private | 1200 |
| | **Total** | | | | **1700** |

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**ANNEXURE-III**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3836 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**As on 30.03.2022**

**Hydro Electric Schemes concurred by Central Electricity Authority and yet to be taken up for construction due to various reasons**

| Sl. No | Name of Scheme | State/UT | Sector | Developer | Installed Capacity (MW) | Date of CEA concurrence | Remarks |
|---|---|---|---|---|---|---|---|
| 1. | Teesta St-IV | Sikkim | Central | NHPC | 520 | 13.05.10 | EC accorded on 09.01.14. FC-I accorded on 26.02.13. FC-II yet to be obtained. |
| 2. | Tawang St-I | Arunachal Pradesh | Central | NHPC | 600 | 10.10.11 | EC accorded on 10.6.11. FC-I & FC-II yet to be obtained. |
| 3. | Tawang St-II | Arunachal Pradesh | Central | NHPC | 800 | 22.09.11 | EC accorded on 10.06.11 (valid till 09.06.2024). FC-I accorded on 08.01.14. FC-II yet to be obtained. |
| 4. | TalongLonda | Arunachal Pradesh | Private | GMR | 225 | 16.08.13 | EC accorded on 07.08.15. FC-I & FC-II yet to be obtained. |
| 5. | Etalin | Arunachal Pradesh | Private | EHEPCL | 3097 | 12.07.13 | EC recommended by EAC on 31.01.17. Formal letter will be issued after FC-I. FC-I & FC-II yet to be obtained. |
| 6. | Sunni Dam | Himachal Pradesh | Central | SJVNL | 382 | 11.02.21 | EC accorded by MoEF&CC on 04.02.2022. FC-I accorded on 22.12.2021. FC-II yet to be obtained. |
| 7. | Wah-Umiam Stage-III | Meghalaya | Central | NEEPCO | 85 | 26.07.21 | EC recommended by EAC on 26.02.2018. FC-I and FC-II yet to be obtained. |
| 8. | Thana Plaun | Himachal Pradesh | State | HPPCL | 191 | 07.09.2021 | EC recommended by EAC subject to condition of Stage-I FC. FC-I and FC-II yet to be obtained. |
| 9. | Kirthai-II | J&K | JV | CVPPL | 930 | 14.06.19 | EC recommended by MoEF&CC on 15.04.2021 and FC yet to be obtained. |
| 10. | Turga Pumped Storage Project | West Bengal | State | WBSPCL | 1000 | 05.10.16 | EC accorded on 02.07.2018. FC-I accorded on 12.04.18. FC-II yet to be obtained. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 11. | Sawalkot | J&K | Central | NHPC | 1856 | 18.04.18 | EC recommended by EAC on 31.01.2017 (MoEF&CC delisted EC for the project on 04.08.2017 and further relisted on 24.01.2022).<br>FC yet to be obtained. |
| 12. | Dikhu | Nagaland | Private | NMPPL | 186 | 31.03.14 | EC yet to be obtained by developer. FC not applicable as forest land is not involved. |
| 13. | Attunli | Arunachal Pradesh | Private | AHEPCL | 680 | 02.07.18 | Both EC and FC are yet to be obtained. |
| 14. | Kotlibhel Stage -IA | Uttarakhand | Central | NHPC | 195 | 03.10.06 | EC accorded on 09.05.2007.<br>EC expired in May'2012.<br>FC-I accorded on 13.10.2011<br>FC-I expired on Oct'2016<br><br>The project is included in the list of 24 projects under review by Hon'ble Supreme Court. |
| 15. | Kotlibhel Stage-IB | Uttarakhand | Central | NHPC | 320 | 31.10.06 | EC accorded earlier on 14.08.07 is withdrawn on 22.11.10. MoEF&CC declined FC-I on 07.07.11.<br><br>The project is included in the list of 24 projects under review by Hon'ble Supreme Court. |
| 16. | Alaknanda | Uttarakhand | Private | GMRL | 300 | 08.08.08 | EC accorded on 12.3.2008,<br>FC-I accorded on 08.11.2011. FC-II accorded on 09.11.2012.<br><br>The project is included in the list of 24 projects under review by Hon'ble Supreme Court. |
| 17. | Kwar | J&K | Joint Venture | CVPPL | 540 | 23.02.17 | EC accorded on 10.04.17.<br>FC accorded on 08.08.14.<br><br>Investment approval under process. |
| 18. | Loktak Downstream | Manipur | JV | LDHCL | 66 | 05.05.17 | EC accorded on 16.01.13.<br>FC-I accorded on 03.03.11 & FC-II accorded on 22.12.2014.<br><br>Investment approval under process. |
| 19. | Dibang | Arunachal Pradesh | Central | NHPC | 2880 | 18.09.17 | EC accorded on 19.05.15.<br>FC-I accorded on 15.04.15.<br>FC-II accorded on 12.03.20.<br><br>Investment approval under process. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 20. | New Ganderwal | J&K | State | JKSPDC | 93 | 10.06.14 | EC restored on 9.10.15.<br>FC accorded on 02.04.2012. |
| 21. | Chhatru | Himachal Pradesh | Private | DSIL | 126 | 15.01.15 | EC recommended by EAC on 24.02.15, Letter will be issued after FC-I.<br>FC-I & FC-II yet to be obtained.<br>Govt. of Himachal Pradesh vide its letter dated 3.10.2019 has cancelled allotment of Chhatru HEP which was allotted on 28.7.2007 to M/S DCM Shriram Infrastructure limited, and terminated the Pre-Implementation Agreement (PIA) signed on 15.2.2008. |
| 22. | Hirong | Arunachal Pradesh | Private | JAPL | 500 | 10.04.13 | EC & FC yet to be obtained by developer.<br>Government of Arunachal Pradesh videletter dated 21.04.2021 withdrawn/cancelled allotment of Hirong HEP to M/s. JAPL. |
| 23. | Naying | Arunachal Pradesh | Private | NDSCPL | 1000 | 11.09.13 | EC & FC yet to be obtained by developer.<br>Government of Arunachal Pradesh vide letter dated 27.04.2021 cancelled allotment of Naying HEP to M/s. NDSCPL. |
| 24. | Lower Siang | Arunachal Pradesh | Private | JAVL | 2700 | 16.02.10 | EC & FC yet to be obtained by developer. |
| 25. | Demwe Lower | Arunachal Pradesh | Private | ADPL | 1750 | 20.11.09 | EC accorded on 12.02.10.<br>EC extended till 11.02.2023.<br>FC-I accorded on 01.03.2012. FC-II accorded on 03.05.2013.<br>Presently, Project is under NCLT. |
| 26. | Kalai-II | Arunachal Pradesh | Private | Kalai PPL | 1200 | 27.03.15 | EC accorded 20.5.15. Final order will be issued after obtaining FC-I.<br>FC-I and FC-II yet to be obtained. |
| 27. | Heo | Arunachal Pradesh | Private | HHPPL | 240 | 28.07.15 | EC accorded on 10.11.15. FC-I accorded on 27.10.15. FC-II yet to be obtained. |
| 28. | Tato-I | Arunachal Pradesh | Private | SHPPL | 186 | 28.10.15 | EC accorded on 10.11.15. FC-I accorded on 27.10.15. FC-II yet to be obtained. |
| 29. | Miyar | Himachal Pradesh | Central | NTPC | 120 | 07.02.13 | EC accorded on 30.07.12. FC-I accorded on 27.07.12.<br>FC-II yet to be obtained. |
| | **Grand Total** | | | | **22768** | | |

**Abbreviations**:

EC : Environment Clearance

FC : Forest Clearance

EAC : Environment Appraisal Committee

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**ANNEXURE-IV**

**ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3836 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**As on 30.03.2022**

**Hydro Electric Project (above 25 MW) under construction in the Country**

| Sl. No. | Name of Project | State | Sector | Developer | Installed Capacity (MW) | Anticipated commissioning Date |
|---|---|---|---|---|---|---|
| 1 | Polavaram | Andhra Pradesh | State | (APGENCO/ Irrigation Dept., A.P.) | 960.00 | 2024-26 |
| 2 | Subansiri Lower # | Arunachal Pradesh | Central | NHPC | 2000.00 | 2022-24 (Aug'23)** |
| 3 | Lower Kopli | Assam | State | APGCL | 120.00 | 2024-25 (Jun'24) |
| 4 | Parbati St. II | Himachal Pradesh | Central | NHPC | 800.00 | 2022-23 (Mar'23) |
| 5 | Luhri-I | Himachal Pradesh | Central | SJVN | 210.00 | 2025-26 (Jan'26) |
| 6 | Dhaulasidh | Himachal Pradesh | Central | SJVN | 66.00 | 2025-26 (May'25) |
| 7 | Uhl-III | Himachal Pradesh | State | BVPCL | 100.00 | 2023-24 (Dec'23) |
| 8 | Shongtong Karcham | Himachal Pradesh | State | HPPCL | 450.00 | 2024-25 (Mar'25) |
| 9 | Bajoli Holi | Himachal Pradesh | Private | GMR | 180.00 | 2021-22 (Mar'22) |
| 10 | Tidong-I | Himachal Pradesh | Private | Statkraft IPL | 100.00 | 2022-23 (Oct'22) |
| 11 | Kutehr | Himachal Pradesh | Private | JSW Energy Ltd | 240.00 | 2025-26 (Nov'25) |
| 12 | Tangnu Romai | Himachal Pradesh | Private | TRPG | 44.00 | 2024-25 * |
| 13 | Pakal Dul | UT of Jammu & Kashmir | Central | CVPPL | 1000.00 | 2025-26 (July'25) |
| 14 | Parnai | UT of Jammu & Kashmir | State | JKSPDC | 37.50 | 2023-24 (Dec'23) |
| 15 | Kiru | UT of Jammu & Kashmir | Central | CVPPL | 624.00 | 2024-25 (Aug.'24) |
| 16 | Lower Kalnai | UT of Jammu & Kashmir | State | JKSPDC | 48.00 | 2025-26 * |
| 17 | Ratle | UT of Jammu & Kashmir | Central | RHEPPL / NHPC | 850.00 | 2025-26 (Feb'26) |
| 18 | Pallivasal | Kerala | State | KSEB | 60.00 | 2022-23 (Sept'22) |
| 19 | Thottiyar | Kerala | State | KSEB | 40.00 | 2022-23 (Dec'22) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 20 | Maheshwar | Madhya Pradesh | Private | SMHPCL | 400.00 | 2023-24 * |
| 21 | Koyna Left Bank | Maharashtra | State | WRD, Maharashtra | 80.00 | 2025-26 * |
| 22 | Shahpurkandi | Punjab | State | PSPCL/ Irrigation Deptt., Punjab. | 206.00 | 2024-25 (Aug'24) |
| 23 | Teesta St. VI | Sikkim | Central | NHPC | 500.00 | 2023-24 (Mar'24) |
| 24 | Rangit-IV | Sikkim | Central | NHPC | 120.00 | 2024-25 (May'24) |
| 25 | Bhasmey | Sikkim | Private | Gati Infrastructure | 51.00 | 2024-25* |
| 26 | Rangit-II | Sikkim | Private | Sikkim Hydro | 66.00 | 2024-25 * |
| 27 | Panan | Sikkim | Private | Himagiri | 300.00 | 2025-26 * |
| 28 | Kundah Pumped Storage Phase-I, II & III) | Tamil Nadu | State | TANGEDCO | 500.00 | 2023-24 (Mar'24) |
| 29 | Vishnugad Pipalkoti | Uttarakhand | Central | THDC | 444.00 | 2024-25 (Jun'24) |
| 30 | Naitwar Mori | Uttarakhand | Central | SJVNL | 60.00 | 2022-23 (Dec'22) |
| 31 | Tapovan Vishnugad | Uttarakhand | Central | NTPC | 520.00 | 2024-25 (Jun'24) |
| 32 | Vyasi | Uttarakhand | State | UJVNL | 120.00 | 2021-22 (Mar'22) |
| 33 | Tehri PSS | Uttarakhand | Central | THDC | 1000.00 | 2022-24*** (Jun'23) |
| 34 | Lata Tapovan | Uttarakhand | Central | NTPC | 171.00 | 2025-26* |
| 35 | Phata Byung | Uttarakhand | Private | LANCO | 76.00 | 2024-25 * |
| 36 | Rammam-III | West Bengal | Central | NTPC | 120.00 | 2024-25 (Dec'24) |
| | **Total:** | | | | **12663.50** | |

*** The Project is presently stalled. Commissioning is subject to immediate restart of works**

**** 2 units (500 MW) likely during 2022-23 & 6 units (1500 MW) during 2023-24**

***** 2 units (500 MW) likely during 2022-23 & 2 units (500 MW) during 2023-24**

**# Part of the project lies in Dhemaji district of Assam.**

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**ANNEXURE-V**

**ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 3836 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**As on 30.03.2022**

**Details of Thermal Power Plants commissioned during last three years in State of Tami Nadu**

| Sl. No. | Project Name | District | Developer | LOA Date | Fuel | Unit No. | Installed Capacity (MW) | Date of capacity Addition |
|---|---|---|---|---|---|---|---|---|
| **FY 2018-19** | | | | | | | | |
| **NIL** | | | | | | | | |
| **FY 2019-20** | | | | | | | | |
| 1 | Neyveli New TPP | Neyveli | NLC | Jun-11 | Lignite | 1 | 500 | 20.12.2019 |
| **FY 2020-21** | | | | | | | | |
| 2 | Neyveli New TPP | Neyveli | NLC | Jun-11 | Lignite | 2 | 500 | 03.02.2021 |
| **FY 2021-22** | | | | | | | | |
| 3 | Tuticorin TPP, St-IV | Thoothukudi | SEPC | Jan-14 | Coal | 1 | 525 | 30.11.2021 |
| | **Total** | | | | | | **1525** | |

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**ANNEXURE-VI**

**ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 3836 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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**Power Projects under Construction in the State of Tamil Nadu**

| Sl. No. | Project | Capacity | Type | Physical Progress | Expected Commissioning |
|---|---|---|---|---|---|
| 1 | NCTPS Stage-III | 800 MW | Thermal | 89.10% | September 2022 |
| 2 | Ennore SEZ | 1320 MW | Thermal | 51.80% | 2023-2024 |
| 3 | Udangudi Stage-I | 1320 MW | Thermal | 57.50% | 2023-2024 |
| 4 | Kundah | 500 MW | Pumped Storage | 27% | 2024 |
| 5 | Kollimalai | 20 MW | Hydro | 44.50% | 2023 |

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3837**
ANSWERED ON 05.04.2022

## RISE IN THE DEMAND FOR ELECTRICITY

**3837 # DR. KIRODI LAL MEENA:**

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

(a) the steps proposed to be taken by Government to fulfill the demand of electricity keeping in view that the demand of electricity is likely to increase three times between the year 2018 to 2040; and

(b) whether the less investment in inefficient transmission system in Government power plants, lower price of electricity, extreme loss to distribution companies, declining water level in addition to cheap rate electricity are major challenges of power production sector in the country, if so, the steps taken/proposed to be taken by Government in this regard?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) & (b):** The steps taken by the Central Government to fulfill the demand of electricity are given at **Annexure**. As per the study by Central Electricity Authority, the installed generation capacity is likely to be around 817 GW by 2030 which will be adequate to meet the electricity demand by 2030.

The robust national grid is facilitating transfer of power from surplus regions to deficit regions without any transmission constraints. The inter-regional transmission capacity has been increased from 35,950 MW as on 31.03.2014 to 1,12,250 MW as on 28$^{th}$ February, 2022. The capacity of the electricity Grid is being expanded on a continuous basis matching with the growth in electricity generation and electricity demand.

The transmission system are mostly built through tariff based competitive bidding route. However, the Central Government is also funding Transmission schemes worth around Rs.16,000 crore in UT of J&K, UT of Ladakh and North Eastern States. The intra-State transmission lines are built by the State transmission companies.

In order to meet the growing demand of the electricity consumers, the distribution network also requires upgradation and augmentation on continuous basis, which are undertaken by the distribution companies. The Central Government is also assisting the States for creation/argumentation of distribution infrastructure through its various schemes including Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), and Revamped Distribution Sector Scheme (RDSS) to enable them to achieve the objective of providing uninterrupted power supply to all consumers. The new scheme RDSS has an outlay of Rs.3,03,785 crore and an estimated gross budgetary support of Rs.97,631 crore from Central Government. RDSS aims at bringing down losses of distribution utilities.

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**ANNEXURE**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 3837 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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The following steps are taken to increase the power generation:

i. Thermal Projects totaling to 28460 MW are under construction in the country.

ii. Presently, there are 36 Large Hydro Projects (above 25 MW) totaling to 12663.5 MW which are under implementation in the country.

iii. Nuclear capacity amounting to 8700 MW are under construction and 7000 MW nuclear power projects have been accorded Administrative Approval and Financial Sanction.

iv. Hon'ble Prime Minister at Glasgow COP26 Summit has set a target to achieve 500 GW installed capacity from non-fossil fuel based capacity (Hydro, Nuclear, Solar PV, Wind, Biomass etc.) by 2030.

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3838**
ANSWERED ON 05.04.2022

**OUTSTANDING DEBT OF POWER DISTRIBUTION COMPANIES**

**3838 SHRI BINOY VISWAM:**

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

(a) whether it is a fact that there are large outstanding dues of power distribution companies towards Central and State power generation stations, IPPs and renewable energy generators;

(b) if so, the details thereof, along with details of the outstanding debt and total amount recovered till date, of the top ten power DISCOMS;

(c) the main reasons for the large outstanding dues and the steps being taken to recover the same; and

(d) the impact, short and long term, of this surmounting debt, both on the power sector and on the common consumer?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) & (b) :** As per data provided by the power sector Generating companies, on the PRAAPTI Portal, details of total overdues of DISCOMs towards Central power generation stations, Independent Power Producers (IPPs) and Renewable Energy (RE) generators as on 31.12.2021, as on 31.01.2022 and as on 28.02.2022 are Rs. 95,717 Cr., Rs. 98,545 Cr. and Rs. 1,00,987 Cr. respectively. The State-wise details are placed at **Annexure-I.** The outstanding debt of top 10 DISCOMs, as on 31st March, 2020 along with the net decrease and increase in debt levels in comparison to 31st March, 2019 is placed at **Annexure-II.**

**(c) :** Main reasons for the increase in outstanding dues payable to GENCOs and poor financial performance of DISCOMs are: tariffs are not reflective of costs; poor billing and collection efficiencies; non-payment of electricity dues by State Government Departments; non-payment/short payment by the State Government against the subsidies announced by them. All these aspects are related to deficiencies in the governance of DISCOMs.

The Government of India has made several interventions to improve financial and operational efficiencies of DISCOMs linked to reform measures including Liquidity Infusion Scheme (LIS); Additional Borrowing of 0.5% of GSDP to States linked to power sector reforms; introducing additional prudential norms for lending by Power Finance Corporation (PFC) Limited and REC Limited; and Revamped Distribution Sector Scheme (RDSS). Fund admissibility to States and DISCOMs in all these measures will be conditional on their taking steps to improve their operational and financial efficiencies.

……2.

Further, the Government had also issued an order dated 28th June, 2019 enforcing opening and maintaining of adequate Letter of Credit (LC) as payment security mechanism under Power Purchase Agreements (PPAs) by Distribution Licensees. The order mandates NLDC & RLDC to dispatch power only after confirming opening of LC. These reform measures will improve the financial health of DISCOMs which will improve the liquidity situation leading to reduction in outstanding dues to Power Generating companies (GENCOS).

Furthermore, all the Distribution Companies are continuously pursued by the Generating Companies and Inter State Transmission licensee for payment of outstanding dues. In case of default, notices for regulation of power supply are served and Tripartite Agreement between Reserve Bank of India (RBI) and State Government is also invoked for recovery of dues.

**(d) :** Poor liquidity arising out of the adverse financial position of DISCOMs not only causes problems to consumers in terms of poor power supply; but also causes problems upstream in the power sector value chain. Cash strapped DISCOMs find it difficult to pay their creditors, including Generating Companies, who in turn are not able to pay for Coal supplies and Railways freight, as well as salaries to their Staff and repayment of Bank Loans taken for the construction of the plant.

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**ANNEXURE-I**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 3838 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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| **Overdues of State DISCOMs towards Gencos (CPSEs, IPPs, REs) excluding State Gencos (As per PRAAPTI Portal as on 16.03.22)** | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (Overdue figures do not include disputed amount) | | | | | | | | | | | | | |
| **(All amount in Rs. Cr.)** | | | | | | | | | | | | | |
| **Sl. No.** | **States/UTs** | **As on 31.12.2021** | | | | **As on 31.01.2022** | | | | **As on 28.02.2022** | | | |
| | | **CPSEs** | **IPPs** | **REs** | **Total** | **CPSEs** | **IPPs** | **REs** | **Total** | **CPSEs** | **IPPs** | **REs** | **Total** |
| 1 | Andaman And Nicobar Islands | 10 | - | - | **10** | 7 | - | - | **7** | 8 | - | - | **8** |
| 2 | Andhra Pradesh | 322 | 408 | 6,581 | **7,312** | 502 | 401 | 6,630 | **7,534** | 386 | 461 | 6,691 | **7,538** |
| 3 | Arunachal Pradesh | - | - | - | **-** | - | - | - | **-** | - | - | - | **-** |
| 4 | Assam | 1 | - | 2 | **2** | 1 | - | 2 | **2** | 1 | - | 4 | **5** |
| 5 | Bihar | 0 | 530 | 109 | **638** | 0 | 593 | 98 | **691** | 0 | 589 | 94 | **683** |
| 6 | Chandigarh | 75 | - | - | **75** | 75 | - | - | **75** | 78 | - | - | **78** |
| 7 | Chhattisgarh | 11 | 64 | 24 | **99** | 11 | 79 | 27 | **117** | 11 | 85 | 24 | **120** |
| 8 | Dadra & Nagar Haveli and Daman & Diu | 4 | 402 | - | **406** | 4 | 402 | - | **406** | 4 | 402 | - | **406** |
| 9 | Delhi | 616 | 5 | - | **620** | 606 | 5 | - | **611** | 553 | 5 | - | **557** |
| 10 | Goa | 9 | - | - | **9** | 9 | - | - | **9** | 9 | - | - | **9** |
| 11 | Gujarat | 19 | 11 | 238 | **268** | 19 | 11 | 237 | **268** | 19 | 81 | 238 | **338** |
| 12 | Haryana | 53 | 1,327 | - | **1,381** | 29 | 1,269 | - | **1,298** | 66 | 688 | - | **754** |
| 13 | Himachal Pradesh | 4 | 1 | - | **5** | 4 | 1 | - | **5** | 13 | 1 | - | **15** |
| 14 | Jammu And Kashmir | 6,081 | 6 | - | **6,088** | 6,538 | 7 | - | **6,544** | 6,857 | 7 | - | **6,864** |
| 15 | Jharkhand | 3,064 | - | - | **3,064** | 3,134 | - | - | **3,134** | 3,567 | - | - | **3,567** |
| 16 | Karnataka | 1,689 | 1,070 | 2,372 | **5,131** | 1,659 | 1,051 | 2,351 | **5,061** | 1,670 | 1,077 | 2,399 | **5,146** |
| 17 | Kerala | 64 | 397 | - | **461** | 63 | 409 | - | **472** | 65 | 417 | - | **482** |
| 18 | Lakshadweep | - | - | - | **-** | - | - | - | **-** | - | - | - | **-** |
| 19 | Madhya Pradesh | 897 | 2,640 | 1,769 | **5,306** | 396 | 2,856 | 1,784 | **5,036** | 396 | 2,991 | 1,782 | **5,169** |
| 20 | Maharashtra | 411 | 16,505 | 1,623 | **18,539** | 413 | 17,262 | 1,686 | **19,361** | 413 | 17,135 | 1,735 | **19,282** |
| 21 | Manipur | 51 | - | - | **51** | 43 | - | - | **43** | 45 | - | - | **45** |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | Meghalaya | 514 | - | - | **514** | 532 | - | - | **532** | 548 | - | - | **548** |
| 23 | Mizoram | 25 | - | - | **25** | 3 | - | - | **3** | 12 | - | - | **12** |
| 24 | Nagaland | - | - | - | **-** | 0 | - | - | **0** | 0 | - | - | **0** |
| 25 | Odisha | 0 | 245 | 3 | **247** | 0 | 248 | 3 | **250** | 0 | 248 | 3 | **250** |
| 26 | Puducherry | 19 | - | - | **19** | 22 | - | - | **22** | 24 | - | - | **24** |
| 27 | Punjab | 47 | 1,075 | 130 | **1,252** | 76 | 1,075 | 157 | **1,307** | 83 | 1,075 | 168 | **1,326** |
| 28 | Rajasthan | 436 | 9,195 | 1,287 | **10,917** | 371 | 8,889 | 1,479 | **10,739** | 509 | 8,846 | 1,497 | **10,852** |
| 29 | Sikkim | 39 | - | - | **39** | 47 | - | - | **47** | 48 | - | - | **48** |
| 30 | Tamil Nadu | 6,083 | 8,189 | 3,255 | **17,527** | 6,874 | 8,710 | 3,242 | **18,826** | 6,967 | 9,385 | 3,307 | **19,658** |
| 31 | Telangana | 836 | 2,951 | 2,445 | **6,233** | 892 | 3,171 | 2,515 | **6,578** | 914 | 3,418 | 2,560 | **6,891** |
| 32 | Tripura | 162 | - | - | **162** | 156 | - | - | **156** | 146 | - | - | **146** |
| 33 | Uttar Pradesh | 629 | 8,091 | 15 | **8,735** | 750 | 8,104 | 15 | **8,868** | 1,147 | 8,462 | 15 | **9,624** |
| 34 | Uttarakhand | 2 | - | - | **2** | 6 | - | - | **6** | 6 | - | - | **6** |
| 35 | West Bengal | 66 | 512 | 1 | **579** | 3 | 533 | 1 | **537** | 2 | 533 | 1 | **536** |
| | **Total** | 22,239 | 53,624 | 19,853 | **95,717** | 23,244 | 55,075 | 20,226 | **98,545** | 24,567 | 55,903 | 20,517 | **1,00,987** |

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**ANNEXURE-II**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 3838 ANSWERED IN THE RAJYA SABHA ON 05.04.2022**

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## Total Borrowings - Top 10 Discoms

| Sl. No. | Name of Utility | Total Borrowings as on March 31, 2020 | Total Borrowings as on March 31, 2019 | Increase in Total Borrowings from 2018-19 to 2019-20 |
|---|---|---|---|---|
| 1 | TANGEDCO | 1,24,413 | 1,13,438 | 10,975 |
| 2 | MSEDCL | 39,086 | 35,197 | 3,889 |
| 3 | APSPDCL | 20,436 | 13,601 | 6,836 |
| 4 | KSEBL | 20,310 | 19,471 | 839 |
| 5 | MPMaKVVCL | 18,178 | 16,913 | 1,265 |
| 6 | MPPoKVVCL | 17,535 | 16,030 | 1,505 |
| 7 | JVVNL | 17,185 | 19,391 | -2,206 |
| 8 | DVVNL | 17,001 | 17,999 | -998 |
| 9 | PSPCL | 16,258 | 30,473 | -14,215 |
| 10 | JdVVNL | 16,184 | 16,513 | -329 |

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3839**
ANSWERED ON 05.04.2022

## COAL STOCK IN THERMAL POWER PLANTS

**3839 SHRI PRABHAKAR REDDY VEMIREDDY:**

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

(a) whether it is a fact that Government's guidelines mandate thermal power projects to stock coal for 14 days to avoid any crisis;

(b) if so, the reasons that many thermal power plants are not abiding by this and keeping stocks only for 2-3 days;

(c) the reasons that there is coal shortage and the thermal power plants and States are running helter-skelter for coal; and

(d) the present status of coal production, supply and imports?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) to (c) :** To maintain adequate coal stock by thermal power plants, the Government on 06.12.2021 has issued the revised coal stocking norms which mandate the power plants to maintain coal stock at a daily requirement of 85% PLF for 12 to 17 days in case of pithead plants and 20 to 26 days in case of non-pithead plants, with seasonal variation based on despatch/consumption pattern during the year.

The coal stock on 28th March, 2022 was 25.5 MT, which is sufficient for an average of about 9 days at a requirement of 85% PLF.

**(d) :** During April, 2021 to February, 2022, the production of coal from CIL, SCCL and Captive mines allotted to power sector and coal despatched to power sector were as under:

**(in MT)**

| April, 2021 to February, 2022 | CIL | SCCL | Captive Mines allocated to power sector | Total |
|---|---|---|---|---|
| Coal Production | 542.4 | 58.6 | 73.4 | 674.4 |
| Coal Despatch to Power Sector | 487.9 | 48.9 | 64.1 | 600.9 |

Further, the coal imported by power sector during April, 2021 to February, 2022 was about 24.2 MT.

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GOVERNMENT OF INDIA
MINISTRY OF POWER
**RAJYA SABHA**
**UNSTARRED QUESTION NO.3840**
ANSWERED ON 05.04.2022

**POLICY ADVOCACY ARM**

**3840 # SMT. GEETA ALIAS CHANDRAPRABHA:**

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

(a) the objective of the Policy Advocacy Arm; and

(b) the benefits that it would accrue to the common man, the details thereof?

**A N S W E R**

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

**(a) :** Power Foundation, a registered Society under the Societies Registration Act, 1860 has been established by the Central Public Sector Undertakings with the objectives to carry out/sponsor research on power and allied sectors providing authoritative analysis, data, policy recommendations and real-world solutions to help draw up smooth pathways for India's energy transition, identifying and resolving challenges therein, promotion of renewable energy in various sectors of the economy & leading to electrification of the economy, e-mobility, switch to electric cooking using Renewables and also to provide specialized training and consultancy services.

**(b) :** The Power Foundation will work towards sustainability and viability of the power and allied sectors in the new energy paradigm which would benefit to the common man by way of ensuring reliable and affordable power with reduced emissions.

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