

GOVERNMENT OF INDIA
MINISTRY OF POWER
RAJYA SABHA
UNSTARRED QUESTION NO.1595
ANSWERED ON 14.03.2023

LINE LOSSES DUE TO ELECTRIC PILFERAGE

1595 SHRI SUSHIL KUMAR GUPTA:

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

- (a) whether Government is aware that due to the electric pilferage, the line losses to the electricity distribution agency/company are substantial;
- (b) the percentage of the line losses in Union Territories and other States during the last five years;
- (c) whether the private distribution of electricity is leading to better supply conditions with less electric pilferage; and
- (d) if so, how this experience can further be implemented in the wider interest of the country and consumers?

A N S W E R

THE MINISTER OF POWER AND NEW & RENEWABLE ENERGY

(SHRI R.K. SINGH)

(a) : Line losses in electrical networks are predominantly due to ohmic (heat) loss. Illegal electricity connections and theft of power leads to commercial loss which affects the financial health of the distribution companies with consequential effects like poor quality of power. The Aggregate Technical & Commercial (AT&C) loss is one of the key indicators of DISCOMs performance, which includes impact of power theft also.

(b) to (d) : As per the 'Report on Performance of Power Utilities' for the years 2018-19 to 2020-21 published by Power Finance Corporation Ltd. (PFC), Aggregate Technical and Commercial (AT&C) Losses of distribution utilities during FY 2016-17 to FY 2020-21 are given below-

National Level Figures	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
AT&C Losses (%)	23.72	21.53	21.64	20.73	22.32	17*

*Provisional figures.

The State-wise and Utility-wise details of AT&C Losses are given at **Annexure**.

The pilferage of electricity is one of the several reasons for AT&C losses of the power distribution utilities. It is the prime responsibility of respective Distribution Utilities to take adequate measures to stop power theft. However, Govt. of India supplements the efforts of States/ distribution utilities by providing funding for the purpose under various schemes launched from time to time. Under RDSS Prepaid Smart meters including System metering are important interventions in reducing distribution losses in the Utilities and in facilitating automatic measurement of energy flows and energy accounting as well as auditing without any human intervention. Alongwith installation of prepaid Smart metering and the associated Advanced Metering Infrastructure (AMI), System metering at Feeder and Distribution Transformer level with communicating feature would also be taken up to facilitate proper energy accounting every month for identification of defaulting consumers, theft prone pockets and high loss areas. Under the scheme, advanced ICT like Artificial Intelligence & Machine Learning (AI/ML) would be leveraged to analyse data generated through smart meters to detect the theft cases and to prepare actionable MIS from system generated energy accounting reports so as to enable the DISCOMs to take informed decisions on power theft along with loss reduction.

Under Aatma Nirbhar Bharat Abhiyan, Government of India have taken a policy decision to privatize the distribution functions in the Power Departments / Utilities in the Union Territories. This is an important policy decision of the Government, taken with the objectives of providing better services to consumers and improvement in operational and financial efficiency of Distribution sector which currently is beset with inefficiencies. This will also provide a model for emulation by other Utilities across the country.

Further, there are specific provisions in the Electricity Act, 2003 (Section 126 and Sections 135 to 140) relating to theft and unauthorized use of electricity, including stringent penal provisions and speedy trial for such offences by Special Courts (Part XV of the Electricity Act, 2003). As per Electricity (Rights of Consumers) Rules, 2020, the distribution licensee shall arrange to display on its website feeder-wise outage data, efforts made for minimizing outages, prevention of theft or unauthorized use of electricity or tampering, distress or damage to electrical plant, electric lines or meter and results obtained during the year. Also, Tariff Policy 2016 envisages that in order to reduce theft of power, the distribution companies should have enabling feature like distribution SCADA with distribution management system and energy audit functions.

ANNEXURE REFERRED IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 1595
ANSWERED IN THE RAJYA SABHA ON 14.03.2023

State-wise and utility-wise details of AT&C Losses

	2016-17	2017-18	2018-19	2019-20	2020-21
Andaman & Nicobar Islands		30.28	23.43	23.34	51.94
Andaman & Nicobar PD		30.28	23.43	23.34	51.94
Andhra Pradesh	13.77	14.15	25.67	10.77	27.25
APCPDCL					20.07
APEPDCL	7.48	10.88	18.30	6.64	20.85
APSPDCL	17.02	16.04	29.76	13.17	37.48
Arunachal Pradesh	53.64	51.08	52.53	40.49	44.87
Arunachal PD	53.64	51.08	52.53	40.49	44.87
Assam	20.11	17.64	20.19	23.39	18.73
APDCL	20.11	17.64	20.19	23.39	18.73
Bihar	43.34	33.51	33.30	39.95	35.33
NBPDCL	37.85	30.46	26.97	28.94	32.47
SBPDCL	46.81	35.53	37.81	48.29	37.57
Chandigarh		9.56	13.50	15.86	11.89
Chandigarh PD		9.56	13.50	15.86	11.89
Chattisgarh	23.87	20.74	24.96	18.46	20.40
CSPDCL	23.87	20.74	24.96	18.46	20.40
Dadra & Nagar Haveli		6.55	5.45	3.56	5.17
DNHPDCL		6.55	5.45	3.56	5.17
Daman & Diu		17.11	6.19	4.07	4.48
Daman & Diu PD		17.11	6.19	4.07	4.48
Goa	24.33	10.48	17.61	11.41	12.94
Goa PD	24.33	10.48	17.61	11.41	12.94
Gujarat	14.42	12.96	14.05	11.79	11.91
DGVCL	10.20	6.60	5.90	6.22	7.40
MGVCL	11.24	11.73	10.38	11.30	9.96
PGVCL	21.71	19.64	21.21	18.80	18.30
UGVCL	9.17	9.32	12.01	6.88	7.41
Haryana	26.42	21.78	18.08	18.26	17.05
DHBVNL	23.10	19.16	15.34	16.37	16.93
UHBVNL	30.68	25.38	22.04	20.83	17.21
Himachal Pradesh	11.48	11.08	12.46	13.33	14.02
HPSEBL	11.48	11.08	12.46	13.33	14.02
Jammu & Kashmir	59.96	53.67	49.94	60.46	59.28
JKPDD	59.96	53.67	49.94	60.46	59.28
Jharkhand	40.83	44.72	28.33	37.13	41.36
JBVNL	40.83	44.72	28.33	37.13	41.36
Karnataka	16.84	15.61	19.82	17.58	15.36
BESCOM	14.91	13.17	15.79	17.91	13.86
CHESCOM	19.31	13.20	19.91	21.65	20.27
GESCOM	17.86	16.39	27.38	17.87	20.53
HESCOM	18.35	22.84	24.88	15.31	14.15
MESCOM	19.47	14.23	18.12	15.33	12.08
Kerala	13.42	12.81	9.10	13.12	7.76
KSEBL	13.42	12.81	9.10	13.12	7.76
Lakshadweep		19.15	26.82	13.69	11.63
Lakshadweep ED		19.15	26.82	13.69	11.63
Madhya Pradesh	26.80	30.51	36.63	30.38	41.47
MPMaKVVCL	34.29	39.00	45.02	37.17	49.04
MPPaKVVCL	19.08	18.69	25.28	20.94	30.28
MPPoKVVCL	28.00	34.84	40.38	33.89	45.39
Maharashtra	22.84	14.07	15.80	19.24	26.55
BEST		6.36	4.32	4.62	5.93
MSEDCL	22.84	14.38	16.23	19.80	27.20

Manipur	33.01	27.46	25.26	23.30	20.33
MSPDCL	33.01	27.46	25.26	23.30	20.33
Meghalaya	38.81	41.19	35.22	31.67	30.88
MePDCL	38.81	41.19	35.22	31.67	30.88
Mizoram	24.98	16.16	16.20	20.66	36.53
Mizoram PD	24.98	16.16	16.20	20.66	36.53
Nagaland	38.50	41.36	65.73	64.79	60.39
Nagaland PD	38.50	41.36	65.73	64.79	60.39
Odisha	37.19	33.59	31.55	28.94	29.32
CESU	36.73	35.49	32.49	29.03	
TPCODL					26.78
NESCO Utility	28.13	24.41	24.61	24.45	25.59
SOUTHCO Utility	43.49	40.66	41.33	36.05	35.37
TPSODL					40.30
WESCO Utility	41.70	34.90	30.88	28.81	30.27
TPWODL					33.34
Puducherry	21.34	19.19	19.77	18.45	19.92
Puducherry PD	21.34	19.19	19.77	18.45	19.92
Punjab	14.46	17.31	11.28	14.35	18.03
PSPCL	14.46	17.31	11.28	14.35	18.03
Rajasthan	27.33	24.07	28.25	29.86	26.23
AVVNL	25.19	23.14	23.37	22.08	21.65
JdVVNL	26.17	23.49	35.20	38.26	31.00
JVVNL	29.79	25.19	25.73	27.83	25.08
Sikkim	35.62	32.48	41.83	28.77	29.37
Sikkim PD	35.62	32.48	41.83	28.77	29.37
Tamil Nadu	18.23	19.47	17.86	15.00	13.81
TANGEDCO	18.23	19.47	17.86	15.00	13.81
Telangana	15.19	19.40	18.41	21.92	13.33
TSNPDCL	16.19	24.74	28.63	35.26	9.03
TSSPDCL	14.77	17.16	13.79	15.57	15.48
Tripura	28.95	30.04	38.03	35.71	37.36
TSECL	28.95	30.04	38.03	35.71	37.36
Uttar Pradesh	40.91	37.80	33.19	30.05	27.45
DVVNL	40.62	38.89	37.12	39.75	31.89
KESCO	25.10	22.52	16.49	15.49	12.45
MVVNL	47.27	45.29	40.62	34.14	32.54
PaVVNL	29.73	25.97	22.27	18.64	17.85
PuVVNL	53.19	47.89	39.64	34.24	32.44
Uttarakhand	16.68	16.34	17.45	20.35	15.39
UPCL	16.68	16.34	17.45	20.35	15.39
West Bengal	27.83	26.69	23.00	20.40	21.35
WBSEDCL	27.83	26.69	23.00	20.40	21.35
State Sector	24.11	22.18	22.44	21.50	23.01
Delhi	10.79	9.87	9.12	8.26	8.87
BRPL	11.13	10.53	9.04	8.33	9.70
BYPL	12.99	10.83	10.76	8.54	9.41
TPDDL	8.62	8.20	7.99	7.96	7.39
Gujarat		6.53	5.20	4.59	6.46
Torrent Power Ahmadabad		7.44	5.81	5.07	6.76
Torrent Power Surat		4.43	3.71	3.43	5.66
Maharashtra			8.11	9.06	8.85
AEML			8.11	9.06	8.85
Uttar Pradesh		9.08	9.36	9.73	9.77
NPCL		9.08	9.36	9.73	9.77
West Bengal		10.74	9.23	9.25	13.17
CESC		11.25	9.73	9.52	14.04
IPCL		3.20	2.68	5.87	3.52
Private Sector	10.79	9.33	8.29	7.95	9.27
Grand Total	23.72	21.53	21.64	20.73	22.32
