

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
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- (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.

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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.

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

**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					Total
			2017-18	2018-19	2019-20	2020-21	2021-22 (Exp. taken from NIP Transmission Projects up to 25.03.22)	
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.								

**ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 3834 ANSWERED
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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 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 Thiruvallam 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
