

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.44
ANSWERED ON 23.07.2015

SUPPLY OF COAL AND GAS TO POWER PLANTS

†*44. SHRI KRUPAL BALAJI TUMANE:
SHRIMATI BHAVANA PUNDALIKRAO GAWALI PATIL:

- (a) whether shortage/non-availability of feed stock including coal, gas etc. have impacted power generation in various States;
- (b) if so, the details thereof indicating the actual quantity of coal and gas supplied to the power plants/stations during each of the last three years and the current year and the reasons for short supply of fuel to these power plants/stations;
- (c) whether the recent cancellation of coal blocks allocation has affected power generation and if so, the details thereof; and
- (d) the steps being taken by the Government to ensure uninterrupted supply of coal, gas and other feed stock to the power plants in all the States including Maharashtra?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) to (d) : A Statement is laid on the Table of the House.

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF STARRED QUESTION NO. 44 ANSWERED IN THE LOK SABHA ON 23.07.2015 REGARDING **SUPPLY OF COAL AND GAS TO POWER PLANTS.**

(a) : No, Madam. Total generation in 2014-15 was 1048.7 BU which was 8.4% higher than the previous year.

(b) : Details of quantity of coal supplied to the coal based power plants during the last 3 years and the current year (upto June, 2015) is given at **Annex-I.**

Details of quantity of gas supplied to the gas based power plants during the last 3 years and the current year (upto May, 2015) is given at **Annex-II.**

Due to the shortfall in domestic gas production, the supply of gas to the gas based power plants has been limited.

(c) : No, Madam.

(d) : Steps being taken by the Government to ensure uninterrupted supply of coal and gas to the power plants including those in Maharashtra, inter-alia, include:

- i. Enhanced production of coal by Coal India Limited (CIL). Production increased to 494.23 MT in 2014-15, which is 6.8% higher than that during 2013-14. Production has further increased by 11.4% from 1st April 2015 to 14th July 2015.
- ii. Reallocation of 46 coal blocks to power sector through auction/allotment till 31st March, 2015.
- iii. Separate quantity of coal earmarked in e-auction of coal for power sector to address immediate issue for supply of coal.
- iv. Supply of imported spot RLNG to the stranded gas based power plants selected through a reverse e-bidding process.

ANNEX REFERRED TO IN PART (b) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 44 ANSWERED IN THE LOK SABHA ON 23.07.2015 REGARDING SUPPLY OF COAL AND GAS TO POWER PLANTS.

Coal supplied during the year 2012-13, 2013-14, 2014-15 & 2015-16 (April - June, 2015) to coal based thermal power stations

S. No	Power Plants	Coal supplied during			
		2012-13	2013-14	2014-15	2015-16 (April-June)
I	Northern Region				
	DELHI				
1	RAJGHAT	702	391	356	44
2	BADARPUR	3925	3756	2828	768
	Sub total	4627	4147	3184	812
	HARYANA				
3	PANIPAT	7132	3916	2798	345
4	RAJIV GANDHI	4443	3030	3680	841
5	YAMUNA NAGAR	774	2261	2223	588
6	INDIRA GANDHI	3828	4132	5006	1506
7	MAHATMA GANDHI	2358	4115	3873	1198
	Sub total	18535	17454	17580	4478
	PUNJAB				
8	GH TPS (LEH.MOH.)	4171	3970	2878	393
9	ROPAR	5818	4973	4237	651
10	GND TPS (BHATINDA)	1149	1137	997	116
11	RAJPURA	0	0	3151	947
12	TALWANDI SABO	0	0	656	250
	Sub total	11138	10080	11919	2357
	RAJASTHAN				
13	KOTA	6105	5616	6342	1118
14	SURATGARH	6999	5926	7253	963
15	CHHABRA	2086	1902	3152	807
16	KAWAI	0	2083	4285	1039
	Sub total	15190	15527	21032	3927
	UTTAR PRADESH				
17	ANPARA	7859	8481	7940	2342
18	HARDUAGANJ	1177	2242	2562	562
19	OBRA	3333	3246	3337	804
20	PANKI	806	715	912	279
21	PARICHHA	3534	4915	5065	1262
22	DADRI (NCTPP)	8362	8300	8463	2184
23	RIHAND	11128	12828	15096	3764
24	SINGRAULI	11391	10884	10718	2743
25	TANDA	2885	2796	2555	798
26	UNCHAHAHAR	6203	5477	5232	1413
27	ROSA	4452	4919	5754	1360
28	ANPARA C	2201	4649	5649	1259
29	BARKHERA	523	536	479	72
30	KHAMBARKHERA	523	524	470	84
31	KUNDARKI	477	535	474	87
32	UTRAULA	388	583	893	56
33	MAQSOODPUR	508	523	484	64
	Sub total	65750	72153	76083	19133
	TOTAL NORTHERN REGION	115240	119361	129798	30707
II	WESTERN REGION				
	CHHATTISGARH				
34	DSPM	2521	1950	3074	617
35	KORBA-II	2576	2439	2352	600
36	KORBA-WEST	4968	4909	6538	1807
37	KORBA	15204	15436	14691	3533

38	SIPAT	11168	12399	13759	3541
39	PATHADI	2564	1423	1585	331
40	BHILAI	2673	2165	2404	640
41	OP JINDAL	5191	5576	5727	514
42	BARADARHA	0	0	0	0
43	AKALTARA	0	596	2049	619
44	TAMNAR	0	0	1473	366
	Sub total	46865	46893	53652	12568
	GUJARAT				
45	SIKKA REP.	656	388	675	193

46	GANDHI NAGAR	2609	1284	2102	667
47	UKAI	4142	3503	4443	1162
48	WANAKBORI	6525	3422	5140	1433
49	SABARMATI (C STATION)	1855	1686	1746	479
50	MUNDRA (Adani)	11999	15588	16562	4656
51	MUNDRA UMTTP	5210	11849	10388	2432
52	SALAYA	1966	2875	2996	536
	Sub total	34962	40595	44052	11558
	MADHYA PRADESH				
53	AMARKANTAK EXT	2135	2187	1562	239
54	SANJAY GANDHI	6420	5923	5205	1082
55	SATPURA	5706	5045	5216	1442
56	SHRI SINGHAJI	0	0	1696	574
57	VINDHYACHAL	19086	19924	21152	5532
58	BINA	291	1117	1672	349
59	SASAN UMTTP	0	1004	8525	3723
	Sub total	33638	35200	45028	12941
	MAHARASTRA				
60	BHUSAWAL	3110	5176	5712	1435
61	CHANDRAPUR(MAHARASHTRA)	11812	10169	10682	2943
62	KHAPARKHEDA	6586	6412	6966	1632
63	KORADI	2127	2173	2082	576
64	NASIK	3478	3252	3497	1135
65	PARLI	3620	2859	3905	1144
66	PARAS	2382	2982	2356	705
67	TIRORA	616	5912	9379	3009
68	DAHANU	2763	2586	2529	661
69	BUTIBORI	0	0	972	575
70	AMARAVATI	0	580	1365	426
71	EMCO WARORA	0	1508	2203	583
72	MAUDA	152	802	2022	415
73	WARDHA WARORA	2206	1566	822	395
74	JSW RATNAGIRI	4391	3419	3684	820
75	TROMBAY	2808	2615	2043	680
	Sub total	46051	52011	60219	17134
	TOTAL WESTERN REGION	161516	174699	202951	54201
	SOUTHERN REGION				
	ANDHRA PRADESH				
76	Dr. N.TATA RAO	9736	9385	9678	2478
77	RAYALASEEMA	5213	4967	5616	1498
78	SIMHADRI	9149	10023	10562	2299
79	DAMODARAM SANJEEVAIAH	0	0	0	0
80	THAMMINAPATNAM	23	1174	1104	234
81	SIMHAPURI	673	1447	2295	524
	Sub total	24794	26996	29255	7033
	TELANGANA				
82	KOTHAGUDEM	10346	9916	9786	2114
83	RAMAGUNDEM	13318	13207	14761	3361
84	RAMAGUNDEM - B	322	364	125	41
85	KAKATIYA	2345	2090	2783	436
	Sub total	26331	25577	27455	5952

	KARNATAKA				
86	RAICHUR	7669	7818	8297	2408
87	BELLARY	2904	4114	4167	965
88	TORANGALLU	2737	2213	2517	554
89	UDUPI	2505	2943	2696	1074
	Sub total	15815	17088	17677	5001
	TAMILNADU				
90	ENNORE	929	1451	751	270
91	METTUR	4716	6590	6811	1585
92	NORTH CHENNAI	3503	4491	7551	1997
93	TUTICORIN	6645	6250	6371	1525
94	VALLUR	434	2802	3952	1310
	Sub total	16227	21584	25436	6687
	TOTAL SOUTHERN REGION	83167	91245	99823	24673
	EASTERN REGION				
	BIHAR				
95	BARAUNI	0	0	0	0
96	KAHALGAON	13496	14037	13343	3109
97	MUZAFFARPUR	0	908	827	184
98	BARH II	0	0	1197	528
	Sub total	13496	14945	15367	3821
	JHARKHAND				
99	PATRATU	944	583	705	121

100	TENUGHAT	2072	1752	1687	500
101	BOKARO `B`	2855	1602	1363	200
102	CHANDRAPURA(DVC)	4300	3728	3847	984
103	MAITHON RB	3279	4459	3649	1131
104	KODARMA	0	1403	1522	412
105	MAHADEV PRASAD	76	4274	1189	175
	Sub total	13526	17801	13962	3523
ODISHA					
106	IB VALLEY	2710	2574	2428	699
107	TALCHER (OLD)	3096	3090	3180	782
108	TALCHER STPS	17232	17219	18239	4372
109	STERLITE	6171	6387	5941	1320
110	KAMALANGA	0	1039	3181	997
111	DERANG	0	0	0	0
	Sub total	29209	30309	32969	8170
WEST BENGAL					
112	DURGAPUR	1720	1583	968	251
113	MEJIA	8654	9145	8441	1947
114	BANDEL	1688	1100	1022	188
115	BAKRESWAR	7453	4925	5605	1049
116	D.P.L.	1725	1318	1104	293
117	KOLAGHAT	6391	5069	6330	1321
118	SAGARDIGHI	2600	2513	2898	379
119	SANTALDIH	1612	1907	2614	638
120	BUDGE BUDGE	3639	3548	3481	922
121	SOUTHERN REPL.	756	729	735	146
122	NEW COSSIPORE	235	153	91	
123	TITAGARH	1067	1158	1150	177
124	FARAKKA	9158	10349	9772	2197
125	DURGAPUR STEEL	1669	2908	2885	878
126	HALDIA	0	0	196	415
	Sub total	48367	46405	47292	10801
TOTAL EASTERN REGION		104598	109460	109590	26315
TOTAL ALL INDIA		464521	494765	542162	135896

ANNEX REFERRED TO IN PART (b) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 44 ANSWERED IN THE LOK SABHA ON 23.07.2015 REGARDING SUPPLY OF COAL AND GAS TO POWER PLANTS.

Quantity of Gas supplied to gas based power plants during the Years 2012-13, 2013-14, 2014-15 & 2015-16 (April-May, 2015)

S. No	Name of Power Station	Installed Capacity \$ (MW)	Name of the State	P/ I	GAS SUPPLIED/CONSUMED (MMSCMD)			
					2012-13	2013-14	2014-15	2015-16 (upto May, 2015)
CENTRAL SECTOR								
1	NTPC, FARIDABAD CCPP	431.59	HARYANA	P	1.43	1.02	0.93	0.60
2	NTPC, ANTA CCPP	419.33	RAJASTHAN	P	1.36	1.19	1.02	0.64
3	NTPC, AURAIYA CCPP	663.36	UTTAR PRADESH	P	1.74	1.12	1.05	0.82
4	NTPC, DADRI CCPP	829.78	UTTAR PRADESH	P	2.84	1.92	1.44	1.54
	Sub Total (NR)	2344.06			7.37	5.25	4.44	3.59
5	NTPC, GANDHAR(JHANORE) CCPP	657.39	GUJARAT	P	1.99	0.81	0.99	1.21
6	NTPC, KAWAS CCPP	656.2	GUJARAT	P	1.65	0.80	1.00	1.27
7	RATNAGIRI (RGPL-DHABHOL)	1967	MAHARASHTRA	P	2.78	0.77	0.00	0.00
	Sub Total (WR)	3280.59			6.42	2.38	1.99	2.48
8	KATHALGURI (NEEPCO)	291	ASSAM	I	1.38	1.42	1.33	1.28
9	AGARTALA GT (NEEPCO)	109.5	TRIPURA	I	0.72	0.73	0.78	0.00
10	MONARCHAK (NEEPCO)	65.4	TRIPURA	I	0.00	0.00	0.00	0.74
11	TRIPURA CCPP (ONGC)	726.6	TRIPURA	I	0.00	0.34	1.47	1.54
	Sub Total (NER)	1192.5			2.10	2.49	3.58	3.55
	Total (CS)	6817.15			15.89	10.12	10.01	9.61
STATE SECTOR								
12	I.P.CCPP	270	DELHI	P	0.91	0.73	0.66	0.53
13	PRAGATI CCGT-III	1500	DELHI	P	0.87	0.40	1.19	1.37
14	PRAGATI CCPP	330.4	DELHI	P	1.44	1.39	1.07	1.15
15	DHOLPUR CCPP	330	RAJASTHAN	P	0.77	0.66	0.59	0.33
16	RAMGARH (RRVUNL, Jaisalmer)	273.8	RAJASTHAN	I	0.75	0.90	1.31	1.70
	Sub Total (NR)	2704.2			4.74	4.08	4.82	5.07
17	PIPAVAV CCPP	702	GUJARAT	P	0.00	0.00	0.00	0.00
18	DHUVRAN CCPP(GSECL)	594.72	GUJARAT	P	0.47	0.11	0.01	0.02
19	HAZIRA CCPP(GSEG)	156.1	GUJARAT	P	0.44	0.17	0.14	0.12
20	HAZIRA CCPP EXT	351	GUJARAT	P	0.00	0.00	0.00	0.00
21	UTRAN CCPP(GSECL)	518	GUJARAT	P	0.55	0.01	0.07	0.11
22	URAN CCPP (MAHAGENCO)	672	MAHARASHTRA	P	2.43	2.12	2.29	1.50
	Sub Total (WR)	2993.82			3.89	2.41	2.51	1.74
23	KARAIKAL CCPP (PPCL)	32.5	PUDUCHERRY	I	0.18	0.19	0.08	0.09
24	KOVIKALPAL (TIRUMAKOTTAI)	107	TAMIL NADU	I	0.38	0.65	0.25	0.21
25	KUTTALAM (TANGEDCO)	100	TAMIL NADU	I	0.03	0.35	0.30	0.38
26	VALUTHUR CCPP(Ramanand)	186.2	TAMIL NADU	I	0.55	0.72	0.61	0.39
	Sub Total (SR)	425.7			1.14	1.91	1.24	1.07
27	LAKWA GT (ASEB, Maibella)	157.2	ASSAM	I	0.78	0.81	0.80	0.81
28	NAMRUP CCPP + ST (APGCL)	119	ASSAM	I	0.65	0.62	0.68	0.59
29	BARAMURA GT (TSECL)	58.5	TRIPURA	I	0.39	0.31	0.36	0.31
30	ROKHIA GT (TSECL)	111	TRIPURA	I	0.36	0.54	0.50	0.52
	Sub Total (NER)	445.7			2.18	2.28	2.34	2.23
	Total (SS)	6569.42			11.95	10.68	10.91	10.11

PVT SECTOR								
31	VATWA CCPP (TORRENT)	100	GUJARAT	P	0.08	0.00	0.00	0.00
32	TROMBAY CCPP (TPC)	180	MAHARASHTRA	P	0.91	0.75	0.67	0.67
	Sub Total (WR)	280			0.99	0.75	0.67	0.67
PVT IPP SECTOR								
33	RITHALA CCPP (NDPL)	108	DELHI	P	0.11	0.00	0.00	0.00
	Sub Total (NR)	108			0.11	0.00	0.00	0.00
34	BARODA CCPP (GIPCL)	160	GUJARAT	P	0.25	0.11	0.02	0.02
35	ESSAR CCPP **	300	GUJARAT	P	0.66	0.03	0.00	0.00
36	PAGUTHAN CCPP (GPEC)	655	GUJARAT	P	0.84	0.17	0.19	0.12
37	SUGEN CCPP (TORRENT)	1147.5	GUJARAT	P	2.15	1.23	1.36	1.59
38	UNOSUGEN CCPP	382.5	GUJARAT	P	0.00	0.00	0.00	0.00
39	DGEN Mega CCPP	1200	GUJARAT	P	0.00	0.00	0.00	0.00
	Sub Total (WR)	3845			3.90	1.54	1.57	1.72
40	GAUTAMI CCPP	464	ANDHRA PRADESH	P	0.54	0.00	0.02	0.02
41	GMR - KAKINADA (Tanirvavi)	220	ANDHRA PRADESH	P	0.24	0.00	0.00	0.00
42	GODAVARI (SPECTRUM)	208	ANDHRA PRADESH	P	0.61	0.63	0.32	0.31
43	JEGURUPADU CCPP (GVK)	455.4	ANDHRA PRADESH	P	0.97	0.58	0.36	0.47
44	KONASEEMA CCPP	445	ANDHRA PRADESH	P	0.54	0.00	0.00	0.00
45	KONDAPALLI EXTN CCPP .	366	ANDHRA PRADESH	P	0.42	0.00	0.00	0.00
46	KONDAPALLI CCPP (LANCO)	350	ANDHRA PRADESH	P	0.98	0.75	0.19	0.09

47	PEDDAPURAM (BSES)	220	ANDHRA PRADESH	P	0.49	0.37	0.13	0.00
48	VEMAGIRI CCPP	370	ANDHRA PRADESH	P	0.47	0.09	0.00	0.51
49	VIJESWARAN CCPP	272	ANDHRA PRADESH	P	0.76	0.68	0.42	0.58
50	SRIBA INDUSTRIES	30	ANDHRA PRADESH	P	0.00	0.00	0.00	0.00
51	RVK ENERGY	28	ANDHRA PRADESH	P	0.00	0.00	0.00	0.00
52	SILK ROAD SUGAR	35	ANDHRA PRADESH	P	0.00	0.00	0.00	0.00
53	LVS POWER	55	ANDHRA PRADESH	P	0.00	0.00	0.00	0.00
54	KARUPPUR CCPP (ABAN)	119.8	TAMIL NADU	I	0.49	0.68	0.33	0.49
55	P.NALLUR CCPP (PPN)	330.5	TAMIL NADU	I	0.3	0.01	0.00	0.00
56	VALANTARVY CCPP	52.8	TAMIL NADU	I	0.26	0.25	0.27	0.15
	Sub Total (SR)	4021.5			7.07	4.04	2.04	2.61
57	DLF ASSAM GT	24.5	ASSAM	I	0.04	0.00	0.00	0.00
	Sub Total (NER)	24.5			0.04	0.00	0.00	0.00
	Total (PVT IPP S)	7999			12.10	5.58	3.61	4.33
	Total(PVT)	8279			13.09	6.33	4.28	5.00
	GRAND TOTAL	21665.57			40.00	27.13	25.20	24.71

*APM: Administered price mechanism, RLNG: Regasified liquefied natural gas, LT: Long term

\$ Installed Capacity is as on last day of the month

* Normative gas requirement at 90 % PLF taking GCV of gas=9000k.Cal/SCM (except for Ramgarh CCGT for which GCV is 4150 kCal/SCM), station

heat rate - 2900 k.Cal/kWh for open cycle and 2000 k.Cal/kWh for combined cycle.

+ Including R-LNG

** Out of total 515 MW capacity, 300 MW electricity is being supplied to grid & balance

215 MW is used as captive generation.

P = Supply through Pipe Line

I=Isolated

MU -- Million Unit, KL-- Kilo Litre, KL=1.35*MT

MMSCMD - Million Metric Standard Cubic Metres/day=MMSCM Data yearly/365

HSD -- High Speed Diesel

N/R : Not Reported

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.53
ANSWERED ON 23.07.2015

CAPACITY OF TRANSMISSION LINES

*53. SHRI CH. MALLA REDDY:

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

- (a) the present capacity of power transmission lines in the country;
- (b) whether the transmission lines are being run on its full capacity;
- (c) if so, the details thereof and if not, the reasons therefor;
- (d) whether the power surplus States are unable to supply/divert their surplus power to power deficit States on account of constraints in inter-regional transmission; and
- (e) if so, the details thereof and the steps being taken by the Government to address the issue?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) to (e) : A Statement is laid on the Table of the House.

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF STARRED QUESTION NO. 53 ANSWERED IN THE LOK SABHA ON 23.07.2015 REGARDING **CAPACITY OF TRANSMISSION LINES.**

(a) : As on 30th June, 2015, there was 3,18,422 circuit kilometers of transmission lines and 6,14,875 MVA of transformation capacity of Substations for 220 kV and above voltage levels in the country.

(b) & (c) : The transmission lines are operated in accordance with the Regulations and standards of Central Electricity Authority (CEA) / Central Electricity Regulatory Commission (CERC) / State Electricity Regulatory Commissions. However, in certain cases, the loading on transmission lines may have to be restricted keeping in view the voltage stability, angular stability, loop flows, load flow patterns and grid security.

(d) & (e) : Power surplus States have been able to supply their surplus power to power deficit State Utilities across the country except for some congestion in supply of power to Southern Region and Northern Region.

A number of inter regional links have been planned which interconnect the five regional grids i.e. Northern, Western, Southern, Eastern and North Eastern. The total transmission capacity of such inter-regional links as on June, 2015 is 47,450 MW, which is planned to be increased to 68,050 MW by the end of 12th Plan.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.59
ANSWERED ON 23.07.2015

POWER TARIFF

*59. SHRI KESINENI NANI:
SHRI BHARAT SINGH:

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

- (a) the criteria/norms adopted or the guiding principles laid down by the Government to regulate power tariff in the country;
- (b) whether power tariff in the country especially being charged by private power distribution companies is very high in comparison to tariff charged in developing/developed countries;
- (c) if so, the details thereof and the reasons therefor;
- (d) whether the Government proposes to rationalise the existing power tariff structure in the country; and
- (e) if so, the details thereof and the steps taken/being taken by the Government in this regard?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) to (e) : A Statement is laid on the Table of the House.

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF STARRED QUESTION NO. 59 ANSWERED IN THE LOK SABHA ON 23.07.2015 REGARDING **POWER TARIFF**.

(a) : Tariff is determined under Sections 61 to 64 of the Electricity Act, 2003 by the appropriate Regulatory Commission in line with the provisions of the Act and the policies made thereunder. Whereas the tariff for generation and transmission companies owned or controlled by Central Government is regulated by the Central Electricity Regulatory Commission, the tariff for generation, supply and transmission within the State is determined by the respective State Regulatory Commission. State/Joint Electricity Regulatory Commissions (SERCs/JERCs) notify the terms and conditions of tariff fixation from time to time for both public and private distribution licensees. Section 61 of the Act provides for guiding principles which the Appropriate Commission is required to consider for specifying the terms and conditions of tariff. The relevant provisions of Section 61 are at **Annex-I**. As per Section 61(i), the Regulatory Commissions are also guided by the Tariff Policy notified by the Central Government while specifying the terms and conditions of tariff.

(b) & (c) : The details of Average Tariff for domestic and industrial categories of consumers in different States of India is at Annex-II. A statement indicating price of electricity for households and industry in some of the countries is at **Annex-III**. As is evident, the average tariff in India is not more than that in most of the other countries.

(d) & (e) : Tariff of distribution companies are determined by the SERCs/JERCs based on the principles enunciated under the Electricity Act, 2003 and policies framed thereunder. There is no provision for direct regulation of the electricity tariff by the Government. However, through appropriate policy framework and programmes, the Government is promoting efficiency in generation, transmission and distribution business as also supporting strengthening of the distribution infrastructure, with a view to reducing the Aggregate Technical and Commercial (AT&C) losses. These measures, along with the Government's emphasis on discovery of tariff through competitive bidding, contribute towards lowering of tariff rates.

ANNEX REFERRED TO IN PART (a) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 59 ANSWERED IN THE LOK SABHA ON 23.07.2015 REGARDING POWER TARIFF.

Provisions under The Electricity Act, 2003

Section 61

The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:-

- a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;
- b) the generation, transmission, distribution and supply of electricity are conducted on commercial principles;
- c) the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;
- d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;
- e) the principles rewarding efficiency in performance;
- f) multi year tariff principles;
- g) that the tariff progressively reflects the cost of supply of electricity and also reduces cross-subsidies in the manner specified by the Appropriate Commission;
- h) the promotion of co-generation and generation of electricity from renewable sources of energy;
- i) the National Electricity Policy and tariff policy:

Provided that the terms and conditions for determination of tariff under the Electricity (Supply) Act, 1948, the Electricity Regulatory Commission Act, 1998 and the enactments specified in the Schedule as they stood immediately before the appointed date, shall continue to apply for a period of one year or until the terms and conditions for tariff are specified under this section, whichever is earlier.

ANNEX REFERRED TO IN PARTS (b) & (c) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 59 ANSWERED IN THE LOK SABHA ON 23.07.2015 REGARDING POWER TARIFF.

CONSUMER CATEGORYWISE AVERAGE TARIFF, 2013-14
(Paise/Kwh)

Sl. No.	State/EDs	Domestic	Industrial
I	SPUs		
1	Andhra Pradesh	473.86	535.88
2	Assam	435	537
3	Bihar	328.9	671.12
4	Chhattisgarh	286	480.82
5	Gujarat	462.05	607.9
6	Haryana	437.13	573.01
7	Himachal Pradesh	309.7	430.77
8	Jammu & Kashmir	181.56	340.92
9	Jharkhand	236	632.24
10	Karnataka	422.84	610.18
11	Kerala	281.09	567.86
12	Madhya Pradesh	474.7	580.61
13	Maharashtra	524.21	771.81
14	Meghalaya	313.59	429.38
15	Punjab	424.23	586.68
16	Rajasthan	549.6	582.25
17	Tamil Nadu	255.53	735.76
18	Uttar Pradesh	435.06	736.35
19	Uttarakhand	283.16	413.46
20	West Bengal	540.25	650.45
	Average of SEBs	410.55	628.11
II.	EDs		
1	Arunachal Pradesh	360	336.54
2	Goa	149.54	488.62
3	Manipur	256.37	257.2
4	Mizoram	322.66	474.12
5	Nagaland	340	350.29
6	Pondicherry	137.89	481.67
7	Sikkim	270.06	639.98
8	Tripura	344	518.4
	Average of EDs	230.24	479.20
	All India Average	407.84	625.89
	In Rupees ₹/KWh	4.08	6.26

Source: Planning Commission, Annual Report 2013-14 Annexure 4.27 (Pg187)

Conversion table in \$/MWh (Rate US \$ = ₹ 61)

	Domestic	Industrial
In \$/MWh	66.885	102.622

ANNEX REFERRED TO IN PARTS (b) & (c) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 59 ANSWERED IN THE LOK SABHA ON 23.07.2015 REGARDING POWER TARIFF.

RETAIL ENERGY PRICES IN THE DEVELOPED COUNTRIES IN US DOLLER/UNIT FOR 2014

Sr. No.	NAME OF COUNTRY	Electricity for households (MWh)	Electricity for industry (MWh)
1	Australia
2	Austria	271.90	141.16
3	Belgium	263.77	128.24
4	Canada
5	Chile	172.34	118.02
6	Czech Republic	205.57	148.84
7	Denmark	393.93	119.62
8	Estonia	174.76	124.85
9	Finland	202.27	106.61
10	France	193.36	126.02
11	Germany	387.63	169.32
12	Greece	216.38	141.91
13	Hungary	182.01	132.71
14	Ireland	292.66	173.32
15	Israel	151.62	114.34
16	Italy	305.56	321.70
17	Japan	242.14	174.23
18	Korea	101.42	...
19	Luxembourg	206.82	106.60
20	Mexico	90.85	121.53
21	Netherlands	257.20	112.84
22	New Zealand
23	Norway	148.51	68.71
24	Poland	196.30	109.48
25	Portugal	279.57	152.06
26	Slovak Republic	238.05	179.07
27	Slovenia	212.76	125.73
28	Spain
29	Sweden	233.66	90.43
30	Switzerland	203.69	132.55
31	Turkey	189.96	146.68
32	United Kingdom	228.86	139.78
33	United States	121.16	68.20

Source:- Key World Energy statistics 2014 published by International Energy Agency(IEA).

34	India (Conversion US \$ = 61 ₹)	66.885	102.622
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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.464
ANSWERED ON 23.07.2015

POWER TURBINES

464. SHRI B.V. NAIK:

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

- (a) whether the power turbines are required to be changed so that imported coal can be used in power generation;
- (b) if so, the details thereof; and
- (c) the reasons for promoting the import of coal rather than the production of domestic coal for power generation in the country?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) to (c) : No, Madam. The power turbines are not affected by change in coal quality. However, the boilers of thermal power plants are normally designed for coal quality of a certain range and require coal within the range for satisfactory performance.

Due to wide variations in quality of domestic coal generally received by Indian power stations, the boilers are designed to use a wide variation in coal quality typically from 3000 to 4000 kcal/kg gross heat value. Thus, the boilers are generally seen to be able to accommodate blend of domestic and imported coal. However, the quantity or percentage of imported coal that can be blended in any station would depend on number of factors like the design coal for the boiler, characteristics of domestic coal being received by the station and characteristics of imported coal proposed for blending. The two coals are also required to be compatible for blending so as to avoid slagging and other operational problems.

Domestic production of coal by Coal India Limited (CIL) has increased by 6.8% in 2014-15 over that of previous year 2013-14 and by 11.4 % from 1st April to 14th July in this Financial year. However, to bridge the shortfall of domestic coal, power producers/utilities import coal.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.479
ANSWERED ON 23.07.2015

EMPLOYEES OF REC

†479. SHRI SADASHIV LOKHANDE:

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

- (a) the details of total number of officers and employees working in the Rural Electrification Corporation including Scheduled Castes/Scheduled Tribes (SC/ST) employees;
- (b) whether reserved SC/ST posts are vacant in the Corporations and if so, the details thereof; and
- (c) the action being taken by the Corporation for selection of candidates belonging to SC/ST and backward class on these posts?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

- (a) : The total number of officers and employees working in the Rural Electrification Corporation including Scheduled Castes/Scheduled Tribes (SC/ST) employees are as under :

Employee Type	No. of Employees	No. of SCs	ST
Executives	454	44	14
Non-Executives	167	37	1
Total	621	81	15

- (b) : As on date the following 6 posts falling under the reserved categories are lying vacant:

S No.	Post	Category	No. of post
1.	DGM (Engg.)	ST	1
2.	CM (F&A)	ST	1
3.	Sr. Executive (Engg.)	SC	2
4.	Sr. Executive (Engg.)	ST	2

- (c) : In spite of notifying the vacancies for filling up the posts many times, suitable candidates were not available. All the vacant backlog vacancies are carried forward to the next recruitment cycle on completion of the earlier cycle.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.489
ANSWERED ON 23.07.2015

ADVISORY COMMITTEE FOR REFORMS

489. SHRIMATI POONAMBEN MAADAM:

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

- (a) whether the Government has set up any advisory Committee to discuss issues relating to the power sector and suggest reforms:
- (b) if so, the details thereof;
- (c) whether this initiative will solve the problems of the sector including the problem of fuel shortage threatening the viability of the sector; and
- (d) if so, the details thereof?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) to (d) : In order to expedite resolution of various issues related to Generation, Transmission and Distribution of Power, an "Advisory Group for Integrated Development of Power, Coal and Renewable Energy" was set up under the chairmanship of Shri Suresh Prabhu.

The Advisory Group deliberated on matters, inter-alia, related to evolving a Comprehensive Policy Framework for integrated development of Power, Coal and New & Renewable Energy sector, including (i) optimal Energy Mix, (ii) State Action Plan for 24x7 Power to All, (iii) requisite Transmission and Distribution infrastructure, (iv) development of Renewable Energy, (v) enhancing/optimising fuel supplies, (vi) energy efficiency, (vii) Research & Development and (viii) innovation and new technologies, etc.

The Group has submitted its report to Ministry of Power.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.501
ANSWERED ON 23.07.2015

SETTING UP OF UMPP

501. SHRI ABHIJIT MUKHERJEE:

Will the Minister of **POWER**

be pleased to state:

- (a) the status of setting up of Ultra Mega Power Projects (UMPPs) in the country;
- (b) the steps proposed to be taken by the Government to expedite the work of the delayed projects;
- (c) the number of Power Projects lying pending/incomplete in the country including the state of West Bengal; and
- (d) the steps taken by the Government for completing the pending projects state/ sector-wise and plant-wise?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) : Four UMPPs, viz, Sasan in Madhya Pradesh, Mundra in Gujarat, Krishnapatnam in Andhra Pradesh and Tilaiya in Jharkhand have been awarded to the successful bidders so far. Mundra and Sasan UMPP have been fully commissioned. The status of awarded UMPPs is at Annex-I. The status of other identified UMPPs is at Annex-II.

(b) : I. A Joint Monitoring Committee (JMC) headed by Member (Thermal), Central Electricity Authority (CEA) and co-chaired by Principal Secretary (Energy) of the host State has been constituted to review the progress of implementation of UMPP.

II. Any Ministry/Department or any private entrepreneur can submit/upload their stalled investment projects involving the investment of Rs 1000 crore or more or a project considered to be critical in the Project Monitoring Group (PMG) portal of Cabinet Secretariat. Ministry of Power is taking up such stalled projects, for further monitoring by PMG in Cabinet Secretariat.

(c) : Presently, 82 thermal power projects aggregating to 81741 MW are lying incomplete in the country including two nos. projects aggregating to 2980 MW in West Bengal (Details at Annex –III).

.....2.

- 2 -

Also 47 Hydro Electric Projects (above 25 MW) aggregating to 13208 MW are under construction in the country, out of which, 2 Hydro Electric Projects aggregating to 280 MW are in West Bengal. (Details at Annex–IV).

(d): The following steps are being taken by the Government for timely completion of the projects:

I. Central Electricity Authority (CEA) is monitoring the progress of construction of the power projects in pursuance of 73 (f) of Electricity Act, 2003. Central Electricity Authority continuously monitors the progress through frequent site visits and interaction with the developers and equipment suppliers. CEA holds review meetings periodically with the developers and other stakeholders and identifies critical issues for commissioning of power projects and helps in resolving them.

II. Regular reviews are undertaken by Ministry of Power, Ministry of Heavy Industries and Cabinet Secretariat to identify the critical areas and facilitate faster resolution of inter-ministerial and other outstanding issues.

III. Ministry of Power also reviews the progress of ongoing Hydro electric projects regularly with the equipment manufacturers, State Utilities / CPSUs / Project developers, etc.

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 501 ANSWERED IN THE LOK SABHA ON 23.07.2015.

STATUS OF AWARDED ULTRA MEGA POWER PROJECTS

Sl.No.	Name of UMPP	Location	Status
1	Sasan UMPP (6x660 MW)	Sasan in District Singrauli. Madhya Pradesh	Project awarded and transferred to M/s. Reliance Power Ltd. on 07.08.2007. Project is fully commissioned.
2	Mundra UMPP (5x800 MW)	Mundra in village Tundawand in District Kutch, Gujarat	Project awarded and transferred to M/s. Tata Power Ltd. on 24.04.2007. Project is fully commissioned.
3	Krishnapatnam UMPP (6x660 MW)	Krishnapatnam in District Nellore, Andhra Pradesh	The Project awarded and transferred to M/s. Reliance Power Ltd. on 29th January, 2008. The developer has stopped work at site, citing new regulation of coal pricing in Indonesia. The procurers have issued termination notice. The matter is subjudice.
4	Tilaiya UMPP (6x660 MW)	Near Tilaiya village in Hazaribagh and Koderma Districts, Jharkhand	Project awarded and transferred on 7 th August, 2009 to M/s Reliance Power Ltd (RPL).The developer, Jharkhand Integrated Power Ltd (JIPL, a subsidiary of RPL), has issued notice of termination of Power Purchase Agreement (PPA) on 28.4.2015 citing non transfer of land to the developer by Jharkhand Government.

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 501 ANSWERED IN THE LOK SABHA ON 23.07.2015.

Status of other identified UMPPs:

Sl. No.	Name of UMPP	Location	Status
Odisha			
1.	Bedabahal	Bedabahal in Sundergarh District.	Bid has been cancelled and fresh bid would be issued in Financial year 2015-16.
2.	1st additional UMPP in Orissa	Bijoypatna in Chandbali Tehsil of Bhadrak district for coastal location	Site identified.
3.	2nd additional UMPP in Orissa	Narla&Kasinga sub division of kalahandi District for inland location	Site identified.
Chhattisgarh			
4.	Chhattisgarh	Near Salka & Khamera villages in District Surguja.	RfQ issued on March 2010 and withdrawn on Oct. 2013 due to coal blocks falling in inviolate area. Now, Ministry of Coal vide letter dated 8.4.2015 has tentatively recommended coal blocks.
Tamil Nadu			
5.	Tamil Nadu	Village Cheyyur, District Kancheepuram.	Bid has been cancelled and fresh bid would be issued in Financial year 2015-16.
6.	2nd Tamil Nadu UMPP	Site Not finalized	---
Jharkhand			
7.	2nd Jharkhand UMPP	Husainabad, Deoghar Distt	Ministry of Coal vide letter dated 8.4.2015 has tentatively recommended coal blocks.
Gujarat			
8.	2nd Gujarat UMPP	--	Location not finalized.
Karnataka			
9.	Karnataka	State Govt. has identified a suitable site in Niddodi village of Mangalore taluka Dakshina Kannada District.	Site visit report sent by CEA to Govt. of Karnataka for Niddodi village of Mangalore taluka Dakshina Kannada District highlighting issues with respect to the site and requested for quick resolution of the issues.
Maharashtra			
10.	Maharashtra	--	Location not finalized.
Bihar			
11.	Bihar	Kakwara in Banka Distt	Ministry of Coal vide letter dated 8.4.2015 has tentatively recommended coal blocks.
Uttar Pradesh			
12.	UMPP in Uttar Pradesh	Site not finalized.	A team of CEA and PFC officials visited the sites. CEA has submitted site report to UP Govt.

ANNEX REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 501 ANSWERED IN THE LOK SABHA ON 23.07.2015.

Details of Thermal Power Projects lying incomplete (Under Construction) in the country including the state of West Bengal

State	Project Name	Unit No	Capacity (MW)	Org. Comm. Sched.	Ant. Comm. Sched.
CENTRAL SECTOR					
Assam	Bongaigaon TPP	U-2	250	May-11	Aug-16
		U-3	250	Sep-11	Mar-17
Bihar	Barh STPP- I	U-1	660	Oct.,13	Mar-17
		U-2	660	Apri.,14	Sep-17
		U-3	660	Oct., 14	Mar-18
Bihar	Muzaffarpur TPP Exp	U-4	195	Jan-13	Feb-16
Bihar	Nabi Nagar TPP	U-1	250	Feb-13	Mar-16
		U-2	250	May-13	Jun-16
		U-3	250	Aug-13	Dec-16
		U-4	250	Nov-13	Jun-17
Bihar	New Nabi Nagar TPP	U-1	660	Jan-17	Jun-17
		U-2	660	Jul-17	Dec-17
		U-3	660	Jan-18	Jun-18
Chhatisgarh	Lara TPP	U-1	800	Dec-16	Dec-16
		U-2	800	Jun-17	Jun-17
Jharkhand	Bokaro TPS "A" Exp.	U-1	500	Dec-11	Mar-16
Jharkhand	North Karanpura TPP	U-1	660	Feb-18	Feb-18
		U-2	660	Aug-18	Aug-18
		U-3	660	Feb-19	Feb-19
Karnataka	Kudgi STPP Ph-I	U-1	800	Jan-16	Mar-16
		U-2	800	Jul-16	Sep-16
		U-3	800	Jan-17	Mar-17
Maharashtra	Mouda STPP Ph-II	U-3	660	Mar-16	Aug-16
		U-4	660	Sep-16	Feb-17
Maharashtra	Solapur STPP	U-1	660	May-16	Feb-17
		U-2	660	Nov-16	Aug-17
MP	Vindhyachal TPP Ph-V	U-13	500	Aug-15	Aug-15
MP	Gadarwara TPP	U-1	800	Mar-17	Jun-17
		U-2	800	Sep-17	Nov-17
MP	Khargone TPP	U-1	660	Mar-19	Mar-19
		U-2	660	Sep-19	Sep-19
Odisha	Darlipalli STPP	U-1	800	Feb-18	Feb-18
		U-2	800	Jun-18	Jun-18
Tripura	Monarchak CCPP	ST	35.6	Jul-13	Sep-15
Tripura	Agartala GTP	ST -1	25.5	Mar-15	Aug-15
UP	Unchahar - IV	U-6	500	Dec-16	Nov-17
UP	Meja STPP	U-1	660	Jun-16	Mar-17
		U-2	660	Dec-16	Sep-17
UP	Tanda TPP	U-1	660	May-18	May-18
		U-2	660	Nov-18	Nov-18
WB	Raghunathpur TPP, Ph-I	U-2	600	May-11	Dec-15
WB	Raghunathpur TPP, Ph-II	U-1	660	Aug-17	13th Plan
		U-2	660	Jan-18	13th Plan
Total Central Sector			24916.1		
STATE SECTOR					
AP	Rayalseema TPP St-IV	U-6	600	Jul-14	Dec-16
Assam	Namrup CCGT	GT	70	Sep-11	Jun-16
		ST	30	Jan-12	Sep-16
Bihar	Barauni TPS Extn.	U-1	250	May-14	Jun-16
		U-2	250	Jul-14	Aug-16
Chhatisgarh	Marwa TPP	U-2	500	Jul-12	Sep-15

Gujarat	Sikka TPP Extn.	U-4	250	Jan-14	Dec-15
Gujarat	Bhavnagar CFBC TPP	U-1	250	Oct-13	Mar-16
		U-2	250	Dec-13	Jun-16
Gujarat	Wanakbori TPS Extn.	U-8	800	Oct-18	Oct-18
Karnataka	Bellary TPS	U-3	700	Aug-14	Dec-15
Karnataka	Yermarus TPP	U-1	800	Apr-14	Dec-15
		U-2	800	Oct-14	Apr-16
Maharashtra	Chandrapur TPS	U-9	500	Sep-12	Jan-16
Maharashtra	Koradi TPP Expn.	U-9	660	Jun-14	Sep-15
		U-10	660	Jan-16	Mar-16
Maharashtra	Parli TPP Expn.	U-8	250	Jan-12	Oct-15
MP	Shri Singhaji TPP	U-3	660	Jul-18	Jul-18
		U-4	660	Nov-18	Nov-18

Odisha	Ib valley TPP	U-1	660	Aug-17	Aug-17
		U-2	660	Jan-18	Jan-18
Rajasthan	Chhabra TPP Extn.	U-5	660	Jun-16	Apr-17
		U-6	660	Jun-18	Jun-18
Rajasthan	Suratgarh TPS	U-7	660	Sep-16	Apr-17
		U-8	660	Dec-16	Jul-17
Telangana	Kakatiya TPP Extn	U-1	600	Jul-12	Dec-15
Telangana	Singareni TPP	U-1	600	Feb-15	Dec-15
		U-2	600	Jun-15	Mar-16
TN	Ennore exp. SCTPP(Lanco)	U-1	660	Jan-18	Jan-18
TN	Ennore SCTPP	U-1	660	Mar-18	Mar-18
		U-2	660	May-18	May-18
UP	Anpara-D TPP	U-7	500	Jun-11	Dec-15
WB	Sagardighi TPP-II	U-3	500	Jul-14	Nov-15
		U-4	500	Oct-14	Mar-16
Total State Sector			18180		
PRIVATE SECTOR					
AP	Bhavanapadu TPP Ph-I	U-1	660	Oct-13	Jul-17
		U-2	660	Mar-14	Dec-17
AP	NCC TPP	U-1	660	Mar-15	Oct-16
		U-2	660	Jun-15	Mar-17
AP	Painampuram TPP	U-2	660	Aug-14	Aug-15
AP	Thamminap-atnam TPP stage -II	U-3	350	May-12	Aug-16
		U-4	350	Aug-12	Nov-16
AP	Vizag TPP	U-1	520	Jun-13	Sep-15
		U-2	520	Sep-13	Dec-15
Bihar	Jas Infra. TPS	U-1	660	Aug-14	13th Plan*
		U-2	660	Dec-14	13th Plan*
		U-3	660	Apr-15	13th Plan#
		U-4	660	Aug-15	13th Plan#
Chhattisgarh	Akaltara TPP (Naiyara)	U-3	600	Dec-12	Jun-16
		U-4	600	Apr-13	Mar-17
		U-5	600	Aug-13	Dec-17@
		U-6	600	Dec-13	Mar-18@
Chhattisgarh	Balco TPP	U-2	300	Nov-10	Nov-15
Chhattisgarh	Binjkote TPP	U-1	300	Aug-13	Dec-15
		U-2	300	Nov-13	Jun-16
		U-3	300	Feb-14	13th Plan#
		U-4	300	May-14	13th Plan#
Chhattisgarh	Lanco Amarkantak TPP-II	U-3	660	Jan-13	13th Plan*
		U-4	660	Mar-13	13th Plan*
Chhattisgarh	Raikheda TPP	U-2	685	Jan-14	Dec-15
Chhattisgarh	Singhitari TPP	U-1	600	Jun-14	Mar-16
		U-2	600	Sep-14	Aug-16
Chhattisgarh	TRN Energy TPP	U-1	300	Dec-13	Aug-16
		U-2	300	Apr-14	Mar-17

Chhattisgarh	Uchpinda TPP	U-1	360	May-12	Sep-15
		U-2	360	Nov-12	Dec-15
		U-3	360	Feb-13	Mar-16
		U-4	360	Jul-13	Jun-16
Chhattisgarh	Salora TPP	U-2	135	Sep-11	Dec-15
Chhattisgarh	Visa TPP	U-1	600	Aug-13	17-18*
Jharkhand	Matrishri Usha TPP Ph-I	U-1	270	May-12	17-18*
		U-2	270	Jun-12	17-18*
Jharkhand	Matrishri Usha TPP Ph-II	U-3	270	Feb-13	13th Plan*
		U-4	270	Mar-13	13th Plan*
Jharkhand	Tori TPP	U-1	600	Jun-13	17-18 @
		U-2	600	Jan-15	17-18 @
Maharashtra	Amravati TPP Ph-II	U-1	270	Jul-14	13th Plan*
		U-2	270	Sep-14	13th Plan*
		U-3	270	Nov-14	13th Plan*
		U-4	270	Jan-15	13th Plan*
		U-5	270	Mar-15	13th Plan*
Maharashtra	Lanco Vidarbha TPP	U-1	660	Jan-14	13th Plan*
Maharashtra	Nasiik TPP Ph-I	U-2	660	May-14	13th Plan*
		U-2	270	Apr-12	Dec-15@
		U-3	270	Jun-12	Jun-17@
		U-4	270	Aug-12	Nov-17@
		U-5	270	Oct-12	Mar-18@
Maharashtra	Nasik TPP Ph-II	U-1	270	Apr-13	13th Plan*
		U-2	270	Jun-13	13th Plan*
		U-3	270	Aug-13	13th Plan*
		U-4	270	Oct-13	13th Plan*
		U-5	270	Dec-13	13th Plan*

MP	Anuppur TPP Ph-I	U-2	600	Aug-13	Feb-16
MP	Mahan TPP	U-2	600	Jun-15	17-18@
MP	Gorgi TPP	U-1	660	Jun-13	13th Plan#
MP	Seoni TPP Ph-I	U-1	600	Mar-13	03/16
MP	Niwari TPP	U-2	45	Apr-14	Mar-16
Odisha	Ind Bharat TPP (Odisha)	U-1	350	Sep-11	Sep-15
		U-2	350	Dec-11	Feb-16
Odisha	KVK Nilanchal TPP	U-1	350	Dec-11	17-18*
		U-2	350	Jan-12	17-18*
		U-3	350	Mar-12	18-19*
Odisha	Lanco Babandh TPP	U-1	660	Apr-13	17-18*
		U-2	660	Aug-13	17-18*
Odisha	Malibrahmani TPP	U-1	525	Dec-12	Sep-16
		U-2	525	Feb-13	Mar-17
Punjab	Goindwal Sahib TPP	U-1	270	Apr-13	15-16*
		U-2	270	Oct-13	16-17*
Punjab	Talwandi Sabo TPP	U-2	660	Jan-13	Aug-15
		U-3	660	May-13	Dec-15
		U-2	600	Mar-12	Dec-15
TN	Melamaruthur TPP	U-1	660	May-12	Sep-17
UP	Prayagraj (Bara) TPP	U-1	660	Feb-14	Sep-15
		U-2	660	Jul-14	Jan-16
		U-3	660	Dec-14	May-16
UP	Lalitpur TPP	U-1	660	Oct-14	Sep-15
		U-2	660	Feb-15	Mar-16
		U-3	660	Jun-15	Sep-16
Total Private Sector			38645		
Grand Total			81741.1		

* - Presently no work is going on at site.

@ - Work progress is very slow.

- Work yet to start

ANNEX-IV

ANNEX REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 501 ANSWERED IN THE LOK SABHA ON 23.07.2015.

Hydro Electric Projects (above 25 MW) under construction in the country

Sl. No.	Name of Scheme (Executing Agency)	Sector	I.C. (No. x MW)	Cap. Under Execution (MW)	Latest Commissioning
Andhra Pradesh					
1	Nagarujana Sagar TR (APGENCO)	State	2x25	50.00	2015-16
Sub-total: Andhra Pradesh				50.00	
Arunachal Pradesh					
2	Kameng (NEEPCO)	Central	4x150	600.00	2016-17
3	Pare (NEEPCO)	Central	2x55	110.00	2015-16
4	Subansiri Lower (NHPC)	Central	8x250	2000.00	2018-20
5	Gongri (Dirang Energy)	Private	2x72	144.00	2017-18
Sub-total: Arunachal Pradesh				2854.00	
Himachal Pradesh					
6	Parbati St. II (NHPC)	Central	4x200	800.00	2018-19
7	Uhl-III (BVPCL)	State	3x33.33	100.00	2016-17
8	Swara Kuddu (HPPCL)	State	3x37	111.00	2017-18
9	Sainj (HPPCL)	State	2x50	100.00	2016-17
10	Shongtong Karcham (HPPCL)	State	3x150	450.00	2018-19
11	Kashang -I (HPPCL)	State	1x65	65.00	2015-16
12	Kashang -II & III (HPPCL)	State	2x65	130.00	2017-18
13	Bajoli Holi (GMR)	Private	3x60	180.00	2017-18
14	Sorang (HSPCL)	Private	2x50	100.00	2015-16
15	Tangnu Romai (TRPG)	Private	2x22	44.00	2017-18
16	Tidong-I (NSL Tidong)	Private	100.00	100.00	2016-17
17	Chanju-I (IA Energy)	Private	3x12	36.00	2017-18
Sub-total: Himachal Pradesh				2216.00	
Jammu & Kashmir					
18	Baglihar- II (JKPDCL)	State	3x150	450.00	2015-17
19	Kishanganga (NHPC)	Central	3x110	330.00	2016-17
20	Ratle (RHEPPL)	Private	4x205 + 1x30	850.00	2019-20
Sub-total: Jammu & Kashmir				1630.00	
Kerala					

21	Pallivasal (KSEB)	State	2x30	60.00	2017-18
22	Thottiyar (KSEB)	State	1x30+1x10	40.00	2017-18
Sub-total: Kerala				100.00	
Madhya Pradesh					
23	Maheshwar (SMHPCL)	Private	10x40	400.00	2016-17
Sub-total: Madhya Pradesh				400.00	
Maharashtra					
24	Koyna Left Bank (WRD,MAH)	State	2x40	80.00	2017-18
Sub-total: Maharashtra				80.00	
Meghalaya					
25	New Umtru (MePGCL)	State	2x20	40.00	2016-17
Sub-total: Meghalaya				40.00	

Mizoram					
26	Tuirial (NEEPCO)	Central	2x30	60.00	2016-17
Sub-total: Mizoram				60.00	
Punjab					
27	Shahpurkandi (PSPCL)	State	3x33+3x33+1x8	206.00	2017-18
Sub-total: Punjab				206.00	
Sikkim					
28	Bhasmey (Gati Infrastructure)	Private	3x17	51.00	2017-18
29	Dikchu (Sneha Knietic)	Private	3x32	96.00	2017-18
30	Jorethang Loop (Dans Energy)	Private	2x48	96.00	2015-16
31	Rangit-IV (JAL Power)	Private	3x40	120.00	2018-19
32	Rangit-II (Sikkim Hydro)	Private	2x33	66.00	2017-18
33	Rongnichu (Madhya Bharat)	Private	2x48	96.00	2017-18
34	Tashiding (Shiga Energy)	Private	2x48.5	97.00	2017-18
35	Teesta St. III (Teesta Urja)	Private	6x200	1200.00	2016-17
36	Teesta St. VI (LANCO)	Private	4x125	500.00	2018-19
37	Panan (Himagiri)	Private	4x75	300.00	2018-19
Sub-total: Sikkim				2622.00	
Telangana					
38	Lower Jurala (TSGENCO)	State	6x40	240.00	2015-17
39	Pulichintala (TSGENCO)	State	4x30	120.00	2016-17
Sub-total: Telangana				360.00	
Uttarakhand					
40	Lata Tapovan (NTPC)	Central	3x57	171.00	2019-20
41	Tapovan Vishnugad (NTPC)	Central	4x130	520.00	2018-19
42	Tehri PSS (THDC)	Central	4x250	1000.00	2018-19
43	Vishnugad Pipalkoti (THDC)	Central	4x111	444.00	2018-19
44	Phata Byung (LANCO)	Private	2x38	76.00	2017-18
45	Singoli Bhatwari (L&T)	Private	3x33	99.00	2017-18
Sub-total: Uttarakhand				2310.00	
West Bengal					
46	Teesta Low Dam-IV (NHPC)	Central	4x40	160.00	2015-17
47	Rammam-III (NTPC)	Central	3x40	120.00	2019-20
Sub-total: West Bengal				280.00	
Total:				13208.00	

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.526
ANSWERED ON 23.07.2015

SMART GRID PILOT PROJECTS

526. DR. SANJAY JAISWAL:

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

- (a) the details of expenditure incurred by the Government for the development of smart grid network in the country during the last three years;
- (b) whether there has been any delay in the implementation of the 14 smart grid pilot projects;
- (c) if so, the reasons therefor along with the measures taken to expedite the work of the project; and
- (d) whether the Government proposes to increase the number of smart grid projects in the country, if so the details and status thereof?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) : No expenditure has been incurred by the Government of India so far for the development of smart grid network in the country during the last three years. However, during current FY 2015-16, Government of India share amounting to Rs.11.19 Crores has been sanctioned for disbursement for following three Smart Grid pilot projects:

1. Rs.4.07 Crores to CESC, Mysore
2. Rs.2.43 Crores to HPSEB, Himachal Pradesh
3. Rs.4.69 Crores to IIT Kanpur

(b) & (c): There has been delay in start of implementation of these pilot projects. The major reasons are delayed preparation of Detail Project Report (DPR)'s due to state-of-the-art technology deployment, lack of expertise amongst utility staff, initial lack of response from the bidders and extremely high prices in case of some projects.

.....2.

The measures taken to expedite the work of the project includes Capacity building activities for the utility personnel, Mutual collaboration/ engagement between the utilities for sharing knowledge & resolving common issues and continuous monitoring of projects through India Smart Grid Task Force Secretariat (ISGTF). Utilities were allowed to engage Consultants like POWERGRID, CPRI or private consultants to bring in the required domain expertise.

(d) : Government of India has approved establishment of National Smart Grid Mission (NSGM), which will have its own resources, independence and statutory authority to plan and monitor Smart Grid implementation in India. NSGM shall act as the focal point for coordinating all the activities and projects being undertaken for development of Smart Grid in India across the different Ministries of Government of India.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.542
ANSWERED ON 23.07.2015

FIR ON THEFT OF POWER

†542. SHRIMATI SAKUNTALA LAGURI:
SHRI PRATAPRAO JADHAV:

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

- (a) whether there is any provision of filing FIR against the theft of electricity under the Electricity Act, 2003;
- (b) if so, the details thereof along with cases filed during each of the last three years including action taken thereon;
- (c) whether instances of non-filing of FIR has been reported to the Government; and
- (d) if so, the details thereof along with the reasons therefor?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) & (b) : Yes, Madam. Section 135 of Electricity Act, 2003 has specific provisions for detection of theft and penalizing a consumer with imprisonment for a term which may extend to three years or with fine or with both. Use of electricity through tampered meters and use of electricity for unauthorized purpose etc. are covered under the definition of theft under Section 135(1) (d) & (e) of Electricity Act, 2003. Further, Section 153 of Electricity Act, 2003 provides for setting up Special Courts in the states for speedy trial of offences related to theft of electricity and other offences as referred in sections 135 to 140 and Section 150 of Electricity Act, 2003.

The details of cases related to theft of electricity filed in Special courts set up by various States/ Union Territories during last 3 years i. e. 2012-13 , 2013-14 & 2014-15 (upto Nov. 2014) and the action taken thereon i.e. no. of theft cases in which prosecution has taken place and no. of theft cases in which the penalty has been awarded/judgment passed by the Courts during above years as received from States/UTs are enclosed at **Annex**.

(c) & (d) : No specific information is available in this regard.

ANNEX

ANNEX REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 542 ANSWERED IN THE LOK SABHA ON 23.07.2015.

Information regarding Theft cases of Electricity filed/registered in Special courts in States/UT during last 3 years

S. No	Name of States/UTs	No of Theft cases of Electricity registered in Special courts	No of Theft cases in which prosecution taken place	No of Theft cases in which Judgement passed/penalty awarded
	STATES			
1	Gujarat			
	2012-13	2540	1191	104
	2013-14	3168	1406	92
	2014-15(up to 11/2014)	2450	1290	65
2	Chhattisgarh			
	2012-13	2654	-	1541
	2013-14	2856		1680

	2014-15(up to 11/2014)	3329		1503
3	Karnataka			
	2012-13	15871	193	18
	2013-14	12672	365	7
	2014-15(up to 11/2014)	6902	224	5
	Madhya Pradesh			
	A. PKVVCL			
	2012-13	24948	17539	6561
	2013-14	20014	15977	3284
	2014-15(up to 11/2014)	15394	12848	1299
	B. MPPKVVCL			
	2012-13	25071	24914	1205
	2013-14	18663	18081	1172
	2014-15(up to 11/2014)	19033	19012	153
	C. MPMKVVCL			
	2012-13	15937	13345	5381
	2013-14	16466	12778	3965
	2014-15(up to 11/2014)	13467	8595	1763
5	Maharashtra			
	2012-13	22767	4732	-
	2013-14	17443	4625	
	2014-15(up to 11/2014)	14017	4793	
6	Telangana			
	2012-13	74399	14	17
	2013-14	64083	62	12
	2014-15(up to 11/2014)	44564	73	27
7	Odisha*			
	2012-13	491	367	62
	2013-14	546	442	69
	2014-15(up to 11/2014)	256	145	59
	* Excluding SOUTHCO & Other Energy Police stations of Odisha as Financial year-wise data not available			
8	Tamil Nadu GEDCO			
	Chennai South Region			
	2012-13	1	1	0
	2013-14	0	0	0
	2014-15(up to 11/2014)	0	0	0
	Tirunelveli Region			
	2012-13	0	0	0
	2013-14	2	2	0
	2014-15(up to 11/2014)	-	-	-
	Madurai Region			
	2012-13			
	2013-14			
	2014-15(up to 11/2014)			

	Coimbatore Region			
	2012-13		0	
	2013-14		2	
	2014-15(up to 11/2014)		0	1
	Information in respect of Salem EDC, Namakkal EDC, Erode EDC, Gobi EDC, Chennai North Region, Villupuram Region, Trichi Region & Vellore Region of Tamil Nadu GEDCO for above years are Nil.			
	STATES			
9	Delhi			
	TPDDL			
	2012-13	1198	1354	23
	2013-14	1856	1382	22
	2014-15(up to 11/2014)	1639	1340	18
	BRPL			
	2012-13	2714	4235	129
	2013-14	2724	5826	115
	2014-15(up to 11/2014)	1573	6061	79
	BYPL			
	2012-13	1570	206	52
	2013-14	2095	169	71
	2014-15(up to 11/2014)	1451	167	59
10	Andhra Pradesh			
	APEPDCL			
	2012-13	1760	0	4
	2013-14	1841	1	0
	2014-15(up to 11/2014)	932	1	0
11	Punjab			
	2012-13	1806	129	15
	2013-14	1924	73	10
	2014-15(up to 11/2014)	2134	53	5
12	Mizoram			
	Nil Information			

	2012-13			
	2013-14			
	2014-15(up to 11/2014)			
13	Arunachal Pradesh	Special Court Not Constituted.		
	2012-13			
	2013-14			
	2014-15(up to 11/2014)			
14	Manipur			
	2012-13	433	386	123
	2013-14	16	338	338
	2014-15(up to 11/2014)	0	0	0
15	Meghalaya			
	2012-13	-	2	-
	2013-14	-	2	2
	2014-15(up to 08/2014)	-	-	1
16	Nagaland			
	2012-13	354		
	2013-14	1060		
	2014-15(up to 11/2014)	635		
Note:- Deptt. of Power, Nagaland has set up Anti Power Theft Mobile Squad /Anti Power Theft Police Stations.				
Union Territories				
1	Andman & Nicobar Islands	No Theft cases have been reported in A&N Islands , Hence, no Special Court has been set up till now.		
	2012-13			
	2013-14			
	2014-15(up to 11/2014)			
2	Daman & Diu	Nil Information		
	2012-13			
	2013-14			
	2014-15(up to 11/2014)			
Note:- No information has been received from rest of the States and Union territories				
Source: CEA				

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.549
ANSWERED ON 23.07.2015

POWER GENERATION EQUIPMENT

549. SHRI MAHEISH GIRRI:

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

- whether India is self-sufficient in manufacturing of power generation equipment;
- if so, the details of the expenditure incurred on import of purchasing power equipment in the last five years;
- whether the Government has given any guidelines to the PSUs engaged in manufacturing of power equipments;
- whether the Government has signed any MoU with foreign companies for import and collaboration of power equipment production; and
- if so, the details thereof?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) to (e) : Yes, Madam. India is self sufficient in manufacturing of power generation equipment. BHEL's installed manufacturing capacity is 20,000 MW per annum. This capacity itself is adequate to meet the country's demand, which has been about 88,500 MW during five years of the XII Plan period (2012-17).

During the last five years (2010-11 to 2014-15), total thermal capacity of 16,206.6 MW have been ordered on foreign suppliers for import at an expenditure of Rs. **68,199.61 crores**. Electro-Mechanical Equipments of total hydro capacity of **1530 MW** have been ordered on foreign suppliers for import at a contract value of Rs. **1099.79 crores + Euro 181.918 million** during the same period.

In the year 2010, Central Electricity Authority (CEA) had issued technical standards for power equipment, which are applicable for construction of electrical plants and electric lines.

BHEL has entered into collaboration with M/s Alstom and Siemens for manufacturing of supercritical boilers and turbine generators respectively. Besides, several International manufacturers of supercritical boilers and turbine generators have formed joint ventures with Indian companies for setting up manufacturing facilities for supercritical power equipment in the country. Planned manufacturing capacity envisaged by these ventures is about 16,000 MW per annum for supercritical boilers and 15,000 MW per annum for supercritical turbine-generators.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.567
ANSWERED ON 23.07.2015

SETTING UP NATURAL GAS BASED POWER STATION

567. SHRI BHAGWANTH KHUBA:

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

- (a) whether the Government proposes to set up a natural gas-based power station in the country;
and
(b) if so, the details thereof, State-wise?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) & (b) : No, Madam. It may be mentioned that in view of the reduction in availability in domestic natural gas in the country and no additional domestic gas likely to be available till 2015-16, Ministry of Power has issued an advisory not to plan any gas based power generation plants till 2015-16.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.577
ANSWERED ON 23.07.2015

NEW POWER TRANSMISSION LINES

577. SHRI P.R. SUNDARAM:

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

- (a) whether the Government have awarded projects for laying of new power transmission lines in various States in the country during the last three years and the current year;
- (b) if so, the details thereof along with the capacity addition during the above period, year-wise, including the cost incurred/likely to be incurred thereon;
- (c) whether it is a fact that some high voltage transmission lines are passing through farm/agriculture lands;
- (d) if so, the details thereof and the total area of farm/agriculture land through which these high voltage transmission lines are passing, State-wise; and
- (e) whether any compensation has been paid to the farmers/owners of such land and if so, the details thereof?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) & (b) : Yes, Madam. Special Purpose Vehicle (SPV) for a total 14 transmission schemes worth about Rs.18,000 crore have been handed over to the successful bidder by the Bid Process Coordinators [REC Transmission Projects Company Limited (RECTPCL) and PFC Consulting Limited (PFCCL)] for implementation through tariff based competitive bidding (TBCB) during the last three financial years i.e. 2012-13 to 2014-15 and the current financial year i.e. 2015-16 (upto June, 2015). Year-wise details of the schemes, estimated cost, etc. during the above period are at Annex-I. Similarly, Inter-State transmission projects worth about Rs.53,880 crore have been approved by Power Grid Corporation of India Limited (PGCIL) during the last three

.....2.

financial years (viz., FY 2012-13, FY 2013-14 and FY 2014-15) and the current financial year 2015-16 till June 30, 2015 for laying of new power transmission lines in various States in the country. These projects have been commissioned/are under various stages of implementation. Year-wise details of the transmission capacity addition done by PGCIL during the above period are at **Annex-II**.

(c) & (d) : The high voltage transmission lines are built in all types of terrain including farm / agricultural land. As per the existing provisions of law, land below transmission tower is not required to be acquired and the land owner enjoys the full rights of the land and is allowed to continue cultivation post construction period. Thus, no information is available in respect of the area of the farm / agriculture land through which these high voltage transmission lines are passing with the Government of India.

(e) : The compensation for the crop and tree damages, if any, while casting foundation / installing tower and strigining, is paid to the farmers in line with the provisions of the Electricity Act, 2003 and Indian Telegraph Act, 1885 as per well established procedures.

ANNEX REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 577 ANSWERED IN THE LOK SABHA ON 23.07.2015.

Details of Transmission Projects under TBCB handed over to successful bidder by the REC Transmission Projects Company Limited (REC TPCL), Bid Process Coordinator, during last three years and the current year

Sl. No.	Name of the Project	Estimated Cost (in Rs. Crores)	Date of SPV Transfer
1	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part- A)	4070	24.04.2015
2	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part- B)	3684	24.04.2015
3	Transmission System Strengthening associated with Vindhyachal- V	2845	26.02.2015
4	Northern Region System Strengthening Scheme, NRSS-XXIX	2621	04.08.2014
5	Northern Region System Strengthening Scheme, NRSS-XXXI (Part-A)	225	12.05.2014
6	Northern Region System Strengthening Scheme, NRSS-XXXI (Part-B)	370	12.05.2014
7	ATS of Unchahar TPS	70	24.03.2014
8	Transmission System required for evacuation of power from Kudgi TPS (3 x 800 MW in Phase-I) of NTPC Limited.	1240	30.08.2013
9	System Strengthening in Southern Region for import of power from Eastern Region.	1180	30.08.2013

List of Transmission projects awarded by PFC Consulting Limited, Bid Process Coordinator, through TBCB during the last three years and the current year

Sl. No.	Name of scheme	Estimated Cost (Rs. in crore)	Date of transfer of SPV to the selected developer
1	Transmission System for Patran 400 kV S/S	200	13-Nov-13
2	Eastern Region System Strengthening Scheme – VII	370	09-Dec-13
3	Eastern Region System Strengthening Scheme – VI	540	10-Dec-13
4	Part ATS of RAPP U-7&8 In Rajasthan	310	12-Mar-14
5	Transmission System associated with DGEN TPS (1200 MW) of Torrent Power Ltd.	275	17.03.2015

ANNEX REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 577
ANSWERED IN THE LOK SABHA ON 23.07.2015.

Year-wise details of transmission capacity addition done by PGCIL

Year	Transmission lines (CKM)	Transformation capacity (MVA)	New Sub-stations (Nos.)	Capital Expenditure incurred (Rs. Crore)
2012-13	7,219	40,238	17	20,360
2013-14	6,604	41,160	17	23,158
2014-15	8,833	25,786	8	22,456
2015-16 (till June 30, 2015)	1,686	6,000	4	6,411
Total	24,342	1,13,184	46	72,385

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.601
ANSWERED ON 23.07.2015

POLLUTION FROM THERMAL POWER PLANTS

†601. SHRI JAI PRAKASH NARAYAN YADAV:

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

- (a) whether it is a fact that the thermal power plants in the country are polluting environment due to excessive emission of gases and are also consuming large quantity of water; and
- (b) if so, the details thereof and the steps being taken by the Government in this regard?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) : CO₂ emissions from Indian power sector as monitored by Central Electricity Authority during last five years is as under:

Year	Total CO ₂ Emission in Million Tonnes	Specific CO ₂ emission in Kg/kWh
2009-10	580.0	1.07
2010-11	597.7	1.06
2011-12	637.3	1.05
2012-13	696.3	1.04
2013-14	727.4	1.03

Though the total CO₂ emissions are increasing due to large capacity additions of coal based plants in the country, however, the specific CO₂ emissions from these plants are showing a decreasing trend.

Coal based thermal power stations in India require relatively higher quantity of consumptive water because of high ash content of Indian coals and high ambient temperature conditions. Plant consumptive water requirement is governed by a number of factors such as quality of raw water, type of condenser cooling system, quality of coal, ash utilization, type of ash disposal system, waste water management aspects etc.

.....2.

- 2 -

(b) : The Government of India has taken following steps to reduce CO₂ emission and water consumption from coal based thermal power plants:

- (i) Adoption of more efficient Supercritical Technology for Thermal Power generation resulting in less specific coal consumption (Kg/Kwh) and thereby reducing CO₂ emissions and water consumption.

- (ii) Phased retirement of inefficient and old thermal power generation units is being taken up. A capacity of about 3100 MW has already been retired.
- (iii) Government has planned a capacity addition of 1,75,000 MW from renewable sources by 2022.
- (iv) Perform Achieve and Trade (PAT) Scheme under National Mission on Enhanced Energy Efficiency (NMEEE) is under implementation by Bureau of Energy Efficiency (BEE). In this scheme, individual target for improving energy efficiency has been assigned to 144 thermal power stations in the country. The incremental efficiency of these thermal power stations will lead to reduction in fossil fuel consumption and thereby reducing CO₂ emissions.
- (v) Measures like zero liquid discharge stipulations by MOE&F, use of washed coal with lower ash content, better O&M practices etc. have led to the specific water consumption for coal based plants gradually coming down from a high of 5-7 m³/h per MW in the past to about 3 m³/h per MW presently.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.602
ANSWERED ON 23.07.2015

FOREIGN INVESTMENT IN POWER SECTOR

602. SHRI S.R. VIJAYAKUMAR:

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

- (a) the details of the foreign investment made in the power sector and the additional power generated as a result thereof during the last three years;
- (b) whether the Government has framed any new policy for attracting large-scale foreign investment in the power sector;
- (c) if so, the details thereof; and
- (d) the amount of foreign investment is likely to be invested in the next three years under the policy?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) to (d) : Foreign Direct Investment (FDI) up to 100% is permitted in the power sector, under the automatic route, in Generation, Transmission, Distribution and Power Trading without any upper ceiling on the quantum of investment. The FDI Cap for Power Exchanges is 49% (26% FDI + 23% FII/FPI) through 'Automatic Route'.

Details of FDI inflows in the power sector from 2012-13 to 2014-15 is given blow:
(in \$ mn)

Year	FDI in power
2012-13	536
2013-14	1066
2014-15	657

Total energy generation in these years were 912056.70 MU, 967150.34 MU and 1048672.96 MU respectively including generation due to foreign investment in power sector.

The Government of India has targeted 1,75,000 Mega Watt capacity addition up to year 2022 from renewable sources. It is expected that power sector including renewable sector will attract large amount of foreign investment in the coming years.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.611
ANSWERED ON 23.07.2015

AMENDMENT IN ELECTRICITY ACT, 2003

611. SHRI ADHALRAO PATIL SHIVAJIRAO:
SHRI DHARMENDRA YADAV:
SHRI SHRIRANG APPA BARNE:
SHRI ANANDRAO ADSUL:

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

- (a) whether the Government proposes to amend the Electricity Act, 2003 to separate content and Carriage in distribution sector if so, the details and the salient features including the major objectives of the proposed amendments;
- (b) whether the proposed amendment in the said Act also envisage a concept of multiple licenses to supply electricity through common network and if so, the details thereof including the benefits likely to accrue the consumers;
- (c) whether the National Co-ordination Committee of Electricity Employees and Engineers has opposed the proposed amendment in the Act; and
- (d) if so, the details thereof and the reasons therefor including the stand taken by the Government on the issue?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) : Yes, Madam. Government of India has proposed amendments to the Electricity Act 2003, which, inter-alia, include separation of carriage and content in the distribution sector. The other proposed amendments cover strengthening of grid safety and security, Renewable Generation Obligation (RGO) for new coal and lignite based thermal generating plants, rationalization of tariff determination process, performance oversight of Regulatory Commissions and strict enforcement of Renewable Purchase Obligations (RPO) etc.

.....2.

- 2 -

(b) : Yes, Madam. The concept of introduction of multiple supply licensees in the distribution sector supplying electricity through common network by way of separation of carriage and content has been proposed to be introduced with the objective of bringing further competition and efficiency in the distribution sector by giving choice to the consumers.

(c) : The National Coordination Committee of Electricity Employees & Engineers by way of its representation has raised some concerns in respect of the proposed amendments in Electricity Act, 2003, mostly relating to the proposal of separation of carriage and content in the distribution sector.

(d) : The proposed amendments for separation of carriage and content provide enabling provisions to bring the regime of competition in distribution sector and the actual transfer scheme is to be formulated and implemented by the respective State Governments looking into their specific requirements. Enough flexibility has been provided in the framework to implement the scheme in a phased manner. Further, based on the recommendations of the Standing Committee on Energy, many provisions have been proposed to be amended to take care of the concerns raised in the aforesaid representation.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.628
ANSWERED ON 23.07.2015

FUNDS FOR NEW THERMAL POWER PLANTS

628. SHRI GUTHA SUKENDER REDDY:
SHRI PRABHAKAR REDDY KOTHA:

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

- (a) whether the Telangana/Andhra Pradesh Governments have requested the Union Government for release of funds for establishment of new Thermal Power Plants and if so, the details thereof;
- (b) whether the Union Government has directed the State Governments for replacement of old and outdated Thermal Units with new supercritical thermal units and the details thereof; and
- (c) whether these States have requested the Central Government for release of funds and provide incentives for import of technology and machinery and if so, the details thereof?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) : No, Madam.

(b) : Andhra Pradesh Power Generation Corporation Limited (APGENCO) has informed that Ministry of Environment and Forests and Climate Change (MoEF & CC) while issuing the Environment clearance to the Dr. Narla Tata Rao Thermal Power Station (Dr. NTTPS) Stage-V (1x800 MW), has set out specific conditions, one of which is "considering the pollution load of the old Units (I&II) and proximity to Vijayawada (New Capital of Andhra Pradesh), the Expert Appraisal Committee (EAC) recommended to phase out the units I and II at the earliest".

Central Electricity Authority had recommended to Telangana State Power Generation Corporation Limited (TSGENCO) to explore the possibility of replacing Kothagudem TPS (4x60 MW + 4x120 MW) units with 660 MW or 800 MW Super Critical units.

(c) : No, Madam.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.632
ANSWERED ON 23.07.2015

WASTAGE OF ELECTRICITY

632. SHRI ANANDRAO ADSUL:
SHRI PREM DAS RAI:
SHRI ADHALRAO PATIL SHIVAJIRAO:
SHRI DHARMENDRA YADAV:
SHRI SHRIRANG APPA BARNE:

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

- (a) whether it is a fact that large amount of electricity is wasted due to congestion;
- (b) if so, the details thereof for each of the last three years, State-wise along with the reasons therefor; and
- (c) the steps taken in this regard?

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) : Yes, Madam. Some volume of power does not get cleared in power market for sale due to congestion.

(b) : As per the information available with Central Electricity Regulatory Commission, energy which could not be cleared due to congestion during last three years 2012-13, 2013-14 and 2014-15 is given in the table below:

Year	Volume of electricity that could not be cleared due to congestion (MU)
2012-13	4648
2013-14	5591
2014-15	3144

.....2.

The state wise detail of un-cleared volume of power for sale due to congestion cannot be worked out as India is segregated into power market bid areas by power market operator i.e. (Power System Operation Corporation (POSOCO)) and the congestion is faced in power transfer between those bid areas. The congestion was experienced due to non availability of sufficient inter-regional transfer capability between Western to Northern Region and Western to Southern Region.

(c) : The steps are taken to reduce congestion especially between Western to Northern Region and Western to Southern Region and new transmission corridors have been planned. These corridors are likely to yield benefit in terms of increase in inter-regional transmission capacity between these regions by the end of 12th Plan.
