

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.256
TO BE ANSWERED ON 17.11.2016**

DEMAND AND SUPPLY OF POWER

**256. SHRI RABINDRA KUMAR JENA:
SHRI SIRAJUDDIN AJMAL:**

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

- (a) whether the generation of power during current year is less as compared to its generation during previous year and if so, the reasons therefor;**
- (b) the details of All India and state-wise annual electricity demand and supply during each of the last three years separately for peaking and non-peaking period;**
- (c) the steps being taken/ propsoed to be taken to bridge the gap between the demand and supply of electricity in the country;**
- (d) the details of All India and state-wise annual T&D losses during each of the last three years;**
- (e) the details of All India and state-wise per capita electricity consumption during the last three years; and**
- (f) the extent to which the country performs in terms of the above indicators when compared to the global average and other developed and developing nations in the world?**

A N S W E R

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

(SHRI PIYUSH GOYAL)

- (a) : No, Madam. Electricity generation during the current year was more as compared to previous year. The Electricity generation including from renewable sources during April to September, 2016 was about 632.11 BU as against 593.68 BU during the same period last year showing a growth of 6.5%.**
- (b) : The details of All India and state-wise annual electricity demand and supply during peaking period and the energy requirement and availability which covers peaking as well as non peaking period in each of the last three years and the current year is given at Annex-I.**

(c) : The following steps have been taken to bridge the gap between the demand and supply of electricity in the country:

(i) During the 12th Plan period (2012-17), a capacity addition of about 88928.2 MW from conventional sources have been achieved till 31st October, 2016 and about 21,128 MW from renewable sources have been achieved till 30th September, 2016.

(ii) Adequate supply of the domestic coal to power plants has been ensured. The growth of domestic coal supply to power plants has been around 6.2% during 2015-16.

(iii) During the 12th Plan (2012-17), 1,00,468 ckm of transmission lines and 2,88,458 MVA of transformation capacity have been completed till 31st October, 2016.

(iv) Government of India has taken an initiative to prepare State specific Action Plans for providing 24X7 Power For All (PFA) in partnership with the States.

(v) Two new schemes have been launched by the Government of India, namely, Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development Scheme (IPDS) for strengthening of sub-transmission and distribution networks and for segregation of agricultural feeders to give adequate and reliable supply and reduce line losses.

(vi) Government of India has taken several steps to promote energy conservation, energy efficiency and other demand side management measures.

(vii) Central Government has notified Ujjawal Discom Assurance Yojana (UDAY) scheme on 20.11.2015 for Operational & Financial Turnaround of DISCOMs.

(viii) Government of India has taken steps for expeditious resolution of issues relating to Environmental and forest clearances for facilitating early completion of generation and transmission projects.

(ix) Government of India has launched a scheme by providing support from Power System Development Fund (PSDF) for stranded gas based generation.

(d) : The details of All India and State wise annual T&D losses as reported by the states during 2012-13, 2013-14 & 2014-15 is at Annex-II.

(e): The details of All India and state-wise per capita electricity consumption during the last three years is at Annex- III.

(f) : A comparative statement of per capita electricity consumption of various developed and developing countries along with India is at Annex-IV(a) and Annex-IV(b). The T&D Losses of various developed and developing countries is at Annex-V.

Power Supply Position for 2013-14

State / System / Region	Energy Requirement	Energy Availability	Surplus/Deficit (-)		Peak Requirement	Peak Availability	Surplus/Deficit (-)	
	(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
Chandigarh	1,574	1,574	0	0	345	345	0	0
Delhi	26,867	26,791	-76	-0.3	6,035	5,653	-382	-6.3
Haryana	43,463	43,213	-250	-0.6	8,114	8,114	0	0.0
Himachal Pradesh	9,089	8,883	-206	-2.3	1,561	1,392	-169	-10.8
Jammu & Kashmir	15,613	12,187	-3,426	-21.9	2,500	1,998	-502	-20.1
Punjab	47,821	47,084	-737	-1.5	10,089	8,733	-1,356	-13.4
Rajasthan	58,202	58,042	-160	-0.3	10,047	10,038	-9	-0.1
Uttar Pradesh	94,890	81,613	-13,277	-14.0	13,089	12,327	-762	-5.8
Uttarakhand	11,944	11,493	-451	-3.8	1,826	1,826	0	0.0
Northern Region	309,463	290,880	-18,583	-6.0	45,934	42,774	-3,160	-6.9
Chhattisgarh	18,932	18,800	-132	-0.7	3,365	3,320	-45	-1.3
Gujarat	88,497	88,488	-9	0.0	12,201	12,201	0	0.0
Madhya Pradesh	49,410	49,385	-25	-0.1	9,716	9,716	0	0.0
Maharashtra	126,288	123,672	-2,616	-2.1	19,276	17,621	-1,655	-8.6
Daman & Diu	2,252	2,252	0	0.0	322	297	-25	-7.8
Dadra Nagar Haveli	5,390	5,388	-2	0.0	661	661	0	0.0
Goa	3,890	3,871	-19	-0.5	529	529	0	0.0
Western Region	294,659	291,856	-2,803	-1.0	41,335	40,331	-1,004	-2.4
Andhra Pradesh	95,662	89,036	-6,626	-6.9	14,072	13,162	-910	-6.5
Karnataka	64,150	58,052	-6,098	-9.5	9,940	9,223	-717	-7.2
Kerala	21,577	21,052	-525	-2.4	3,671	3,573	-98	-2.7
Tamil Nadu	93,508	87,980	-5,528	-5.9	13,522	12,492	-1,030	-7.6
Pondicherry	2,344	2,320	-24	-1.0	351	333	-18	-5.1
Lakshadweep	48	48	0	0	9	9	0	0
Southern Region	277,245	258,444	-18,801	-6.8	39,015	36,048	-2,967	-7.6
Bihar	15,391	14,759	-632	-4.1	2,465	2,312	-153	-6.2
DVC	17,407	17,296	-111	-0.6	2,745	2,745	0	0.0
Jharkhand	7,143	7,007	-136	-1.9	1,111	1,069	-42	-3.8
Orissa	24,958	24,546	-412	-1.7	3,727	3,722	-5	-0.1
West Bengal	42,891	42,762	-129	-0.3	7,325	7,294	-31	-0.4
Sikkim	413	413	0	0.0	90	90	0	0.0
Andaman-Nicobar	240	180	-60	-25	40	32	-8	-20
Eastern Region	108,203	106,783	-1,420	-1.3	15,888	15,598	-290	-1.8
Arunachal Pradesh	552	517	-35	-6.3	125	124	-1	-0.8
Assam	7,544	7,062	-482	-6.4	1,329	1,220	-109	-8.2
Manipur	579	548	-31	-5.4	134	133	-1	-0.7
Meghalaya	1,794	1,604	-190	-10.6	343	330	-13	-3.8
Mizoram	446	430	-16	-3.6	84	82	-2	-2.4
Nagaland	577	561	-16	-2.8	109	106	-3	-2.8
Tripura	1,195	1,144	-51	-4.3	254	250	-4	-1.6
North-Eastern Region	12,687	11,866	-821	-6.5	2,164	2,048	-116	-5.4
All India	1,002,257	959,829	-42,428	-4.2	135,918	129,815	-6,103	-4.5

Lakshadweep and Andaman & Nicobar Islands are stand-alone systems, power supply position of these, does not form part of regional requirement and availability.

Note: Both peak met and energy availability represent the net consumption (including the transmission losses) in the various States. Net export has been accounted for in the consumption of importing States.

**ANNEX REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 256
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All India and State wise annual T&D losses from 2012-13 to 2014-15

Region		STATES/UTs	2012-13	2013-14	2014-15
NR	1	HARYANA	35.95	35.83	34.05
	2	HIMACHAL PRADESH	19.14	21.03	20.81
	3	JAMMU & KASHMIR	56.63	54.68	53.06
	4	PUNJAB	20.3	20.67	18.45
	5	RAJASTHAN	24.93	26.92	27.51
	6	UTTAR PRADESH	26.88	29.07	27.19
	7	UTTARAKHAND	26.93	21.82	24.53
	8	CHANDIGARH	19.32	19.12	19.1
	9	DELHI	22.11	19.86	21.49
WR	1	GUJARAT	18.48	18.11	19.28
	2	MADHYA PRADESH	31.45	31.47	32.26
	3	CHHATTISGARH	28.83	28.38	29.21
	4	MAHARASHTRA	21.82	21.8	20.39
	5	D & N HAVELI	9.86	8.55	10.33
	6	GOA	13.35	12.67	14.97
	7	DAMAN & DIU	15.61	13.77	29.63
SR	1	ANDHRA PRADESH	19.3	20.06	17.94
	2	KARNATAKA	11.14	10.18	11.5
	3	KERALA	17.73	14.99	15.4
	4	TAMILNADU	14.51	10.84	11.07
	5	LAKSHADWEEP	18.6	11.2	3.63
	6	PUDUCHERRY	13.53	14.83	14.9
ER	1	BIHAR	49.42	47.26	46.27
	2	JHARKHAND	13.58	13.06	17.2
	3	ORISSA	39.84	38.86	41.96
	4	SIKKIM	28.14	23.11	24.97
	5	WEST BENGAL	24.07	24.05	24.66
	6	A & N ISLS.	18.14	19.79	20.5
NER	1	ASSAM	30.68	31.08	27.57
	2	MANIPUR	35.12	38.51	40.95
	3	MEGHALAYA	23.64	21.38	33.34
	4	NAGALAND	40.16	35.79	26.51
	5	TRIPURA	31.73	35.35	35.93
	6	ARUNACHAL PRADESH	46	46.3	46.24
	7	MIZORAM	37.79	41.54	42.05
All India			23.04	22.84	22.77

ANNEX-III**ANNEX REFERRED TO IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 256
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PER CAPITA CONSUMPTION (kWh)

State/UTs	2013-14	2014-15	(kWh) 2015-16
Chandigarh	1133	1052	1112
Delhi	1446	1561	1557
Haryana	1773	1909	1936
Himachal Pradesh	1348	1336	1339
Jammu & Kashmir	1066	1169	1234
Punjab	1810	1858	1919
Rajasthan	1011	1123	1164
Uttar Pradesh	472	502	524
Uttarakhand	1285	1358	1431
Chhattisgarh	1601	1719	2022
Gujarat	1973	2105	2248
Madhya Pradesh	764	813	929
Maharashtra	1183	1257	1318
Daman & Diu	8003	6960	7836
Dadra & Nagar Haveli	14515	13769	15137
Goa	2198	1803	2738
Andhra Pradesh	1196	1040	1230
Telangana		1356	1439
Karnataka	1179	1211	1242
Kerala	645	672	704
Tamil Nadu	1544	1616	1688
Puducherry	1692	1655	1672
Lakshadweep	665	657	649
Bihar	160	203	258
Jharkhand	810	835	884
Odisha	1349	1419	1564
West Bengal	609	647	660
Sikkim	700	685	687
Andaman-Nicobar	368	361	355
Arunachal Pradesh	503	525	600
Assam	280	314	322
Manipur	266	295	360
Meghalaya	684	704	835
Mizoram	445	449	503
Nagaland	259	311	346
Tripura	331	303	329
All India	957	1010	1075

Note: Per Capita Consumption=(Gross Energy Generation+Net Import)/Mid Year Population.

ANNEX-IV(a)**ANNEX REFERRED TO IN REPLY TO PART (f) OF UNSTARRED QUESTION NO. 256
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**PER CAPITA ELECTRICITY CONSUMPTION OF VARIOUS DEVELOPED COUNTRIES
IN 2012 & 2013**

Sl. No.	Per Capita Consumption (kWh)		
	Name of the Country	2012	2013
1	Canada	15558	15520
2	USA	12947	12987
3	Australia	10218	10067
4	Japan	7753	7836
5	France	7367	7382
6	Germany	7138	7022
7	Korea	10346	10428
8	UK	5452	5409
9	Russia	6602	6562
10	Italy	5277	5124
11	South Africa	4410	4328
12	Brazil	2509	2583
13	China	3475	3766
14	India*	884	914
15	World	2972	3026

Note :-**Basic data obtained from IEA Website (except) India.***** Per Capita Consumption=(Gross Electrical Energy Availability/Midyear Population).**

ANNEX REFERRED TO IN REPLY TO PART (f) OF UNSTARRED QUESTION NO. 256 TO BE ANSWERED IN THE LOK SABHA ON 17.11.2016.

Statement Showing Per Capita Consumption of Electricity (kWh) of Developing Countries & World for the years 2012 & 2013

Sl. No.	Name of the Country	Per Capita Consumption (kWh) 2012	Per Capita Consumption (kWh) 2013
1	Kuwait	16542	15905
2	United Arab Emirate	10175	10547
3	Chinese Taipei	N.A.	10458
4	Brunei Darussalam	8949	9553
5	Saudi Arabia	8763	9157
6	Oman	6520	6434
7	Montenegro	5412	5620
8	Gibraltar	5344	5545
9	Kazakhstan	5085	4893
10	Nederlands Antilles	4891	N.A.
11	Serbia	4371	4444
12	Malaysia	4313	4474
13	FYR of Macedonia	3625	3498
14	Libya	4805	3963
15	Ukraine	3641	3600
16	Belarus	3698	3648
17	Lebanon	3113	3780
18	Venezuela	3401	3231
19	People's of Rep. China	3475	3766
20	Bosnia & Herzegovina	3271	3214
21	Argentina	3027	3175
22	Kosovo	2860	2908
23	World	2972	3026
24	Uruguay	2933	2986
25	Turkey	2760	2761
26	Iran	2752	2888
27	Romania	2602	2495
28	Turkmenistan	2476	2602
29	Brazil	2509	2583
30	Jordan	2357	2350
31	Mexico	2098	2150
32	Thailand	2479	2487
33	Albania	1943	2532
34	Tajikistan	1732	1662
35	Georgia	1935	2070
36	Panama	1943	2007
37	Costarica	1896	1888
38	Syrian Arab Rep.	1169	953
39	Azerbaijan	2053	2092
40	Armenia	1838	1880
41	Egypt	1804	1812
42	Kyrgyzstan	1809	1887
43	Uzbekistan	1605	1637
44	Botswana	1611	1684
45	Mongolia	1604	1923
46	Jamaica	1198	1126
47	Namibia	1614	1641
48	Rep. of Moldova	1514	1353
49	Cuba	1376	1438

50	Tunisia	1411	1435
51	Iraq	1483	1817
52	Peru	1218	1278
53	Ecuador	1276	1327
54	Paraguay	1305	1400
55	Algeria	1203	1244
56	Colombia	1130	1153
57	Vietnam	1273	1306
58	Gabon	1081	1153
59	Dominican Rep.	1455	1499
60	El. Salvador	850	879
61	Morocco	888	878
62	India	884	914
63	Zimbabwe	596	560
64	DPR of Korea	654	660
65	Honduras	680	699
66	Indonesia	733	792
67	Philippines	668	686
68	Bolivia	646	687
69	Zambia	600	767
70	Guatemala	539	563
71	Nicaragua	568	585
72	Sri Lanka	527	528
73	Mozambique	454	446
74	Pakistan	447	448
75	Ghana	348	386
76	Cameroon	262	278
77	Bangladesh	280	293
78	Angola	239	248
79	Cote d'Ivoire	255	269
80	Senegal	210	221
81	Yemen	177	259
82	Congo	180	231
83	Cambodia	206	220
84	Kenya	157	165
85	Nigeria	155	141
86	Sudan	159	209
87	Myanmar	152	164
88	Togo	147	150
89	Dem. Rep. of Congo	112	118
90	Benin	92	94
91	Nepal	119	128
92	United Rep. of Tanzania	101	91
93	Ethiopia	58	65
94	Eritrea	50	49
95	Haiti	50	49

Source- The above information has been downloaded from IEA's website [www.iea.org.Energy Indicators \(Selected Indicators – 2012\) expect for India](http://www.iea.org/Energy Indicators (Selected Indicators – 2012) expect for India)

**ANNEX REFERRED TO IN REPLY TO PART (f) OF UNSTARRED QUESTION NO. 256
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T&D Losses of various Countries in 2012-2013 in (%)

Sl. No.	Name of Country	2012	2013
1	Korea	3.47	3.47
2	Japan	4.79	4.87
3	Germany	4.46	4.51
4	Italy	6.61	6.87
5	Australia	5.68	6.69
6	South Africa	10.19	9.88
7	France	7.99	7.86
8	China	6.56	6.52
9	USA	6.73	6.32
10	Canada	8.19	10.40
11	UK	8.26	7.80
12	Russia	12.59	12.27
13	Brazil	16.63	16.11
14	India	23.65	23.04
15	World	8.89	8.91
