

1.	Kotli Bhel Project	105.98 lacs
2.	Dhauliganga Power Station	105.03 lacs
3.	Tanakpur Power Station	110.13 lacs
4.	Regional Office, Dehradun	1.50 lacs
5.	Relief and Rehabilitation measures after natural disaster in Uttarakhand	100.00 lacs
TOTAL		422.64 lacs

Demand and shortfall of power

866. SHRI D. KUPENDRA REDDY: Will the Minister of POWER be pleased to state:

(a) the demand and shortfall of power in the country in various sectors, sector-wise and State-wise;

(b) whether any study has been conducted to ascertain the requirement of power in these sectors during the next five years;

(c) if so, the details thereof, sector-wise and State-wise; and

(d) the steps taken/proposed to be taken by Government to meet the current and future requirements of power in the country?

THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI PIYUSH GOYAL): (a) Electricity is a concurrent subject. Supply and distribution of electricity to various consumers/sectors in a State/UT is within the purview of the respective State Government/State Power Utility.

The overall State-wise energy and peak shortfall during the current year (April, 2014 to October, 2014), is given in the Statement-I (*See below*).

(b) and (c) The 18th Electric Power Survey (EPS) of India conducted by Central Electricity Authority has estimated electrical energy consumption (requirement at consumer end) for various sectors (Domestic, Commercial, Agriculture, Industrial and Others etc.) for 12th and 13th Five Year Plan.

The State-wise, sector-wise details of forecast electrical energy consumption for the next five years *i.e.* 2015-16 to 2019-20 is given in the Statement-II (*See below*).

(d) The Central Government is taking the following steps to mitigate the shortcomings in supply of power:

- (i) Capacity addition of 1,18,537 MW (including 88,537 MW conventional and 30000 MW renewable) has been planned to meet the demand projected by the 18th EPS by the terminal year of the 12th Five Year Plan.
- (ii) Transmission lines of 1,07,440 ckm and 2,82,740 MVA transformation capacity have been targeted for the 12th Plan. As against this, 45,570 ckm of transmission lines and 1,56,354 MVA of transformation capacity has been achieved till October, 2014.
- (iii) Government of India has taken initiative to prepare Action Plans for providing 24X7 Power For All (PFA) in partnership with the States.
- (iv) Two new schemes have been approved by the Government, namely Deendayal Upadhyaya Gram Jyoti Yojana and Integrated Power Development Scheme for strengthening of sub-transmission and distribution networks and for segregation of agricultural feeders to give adequate and better supply and reduce line losses.
- (v) Renovation and Modernization (R M) of old power plants is planned by the concerned State and Central Power Utilities for improving the Plant Load Factor of power stations
- (vi) The gap in indigenous coal availability is being met through enhanced coal production and coal imports for increased generation by thermal plants.
- (vii) Promotion of energy conservation, energy efficiency and demand side management measures is being undertaken.
- (viii) In order to support financial viability of State Distribution Utilities (Discoms), the Central Government had notified a Financial Restructuring Plan (FRP).
- (ix) Expeditious resolution of issues relating to environmental and forest clearances to facilitate early completion of generation and transmission projects.

Statement-I*Power Supply Position for 2014-15 (Provisional)*

State / System / Region	Energy				Peak			
	April, 2014 - October, 2014				April, 2014 - October, 2014			
	Requirement (MU)	Availability (MU)	Surplus/Deficit (-)		Peak Demand (MW)	Peak Met (MW)	Surplus/Deficit (-)	
			(MU)	(%)			(MW)	(%)
1	2	3	4	5	6	7	8	9
Chandigarh	1,077	1,077	0	0	367	367	0	0
Delhi	19,843	19,739	-104	-0.5	6,006	5,925	-81	-1.3
Haryana	30,237	30,105	-132	-0.4	9,152	9,152	0	0.0
Himachal Pradesh	5,174	5,115	-59	-1.1	1,316	1,313	-3	-0.2
Jammu & Kashmir	8,880	7,107	-1,773	-20.0	2,521	2,017	-504	-20.0
Punjab	34,385	33,905	-480	-1.4	11,534	10,023	-1,511	-13.1
Rajasthan	37,423	37,015	-408	-1.1	10,188	10,077	-111	-1.1
Uttar Pradesh	64,164	53,633	-10,531	-16.4	15,670	13,003	-2,667	-17.0
Uttarakhand	7,383	7,121	-262	-3.5	1,883	1,833	-50	-2.7
Northern Region	208,566	194,817	-13,749	-6.6	51,977	47,642	-4,335	-8.3
Chhattisgarh	12,595	12,425	-170	-1.3	3,759	3,350	-409	-10.9

Gujarat	56,486	56,463	-23	0.0	13,603	13,499	-104	-0.8
Madhya Pradesh	30,408	30,116	-292	-1.0	8,413	8,395	-18	-0.2
Maharashtra	80,367	79,076	-1,291	-1.6	20,724	19,654	-1,070	-5.2
Daman and Diu	1,249	1,249	0	0.0	297	297	0	0.0
Dadar and Nagar Haveli	3,140	3,138	-2	-0.1	679	679	0	0.0
Goa	2,418	2,383	-35	-1.4	501	489	-12	-2.4
Western Region	186,663	184,850	-1,813	-1.0	44,166	42,757	-1,409	-3.2
Andhra Pradesh	38,482	35,684	-2,798	-7.3	7,144	6,549	-595	-8.3
Telangana	22,365	20,254	-2,111	-9.4	7,791	6,648	-1,143	-14.7
Karnataka	35,315	33,424	-1,891	-5.4	10,001	9,503	-498	-5.0
Kerala	12,922	12,679	-243	-1.9	3,760	3,495	-265	-7.0
Tamil Nadu	57,366	55,780	-1,586	-2.8	13,663	13,498	-165	-1.2
Puducherry	1,474	1,449	-25	-1.7	389	348	-41	-10.5
Lakshadweep	28	28	0	0	8	8	0	0
Southern Region	167,924	159,270	-8,654	-5.2	39,094	35,698	-3,396	-8.7
Bihar	10,548	10,268	-280	-2.7	2,992	2,792	-200	-6.7
DVC	11,118	10,808	-310	-2.8	2,653	2,590	-63	-2.4
Jharkhand	4,418	4,291	-127	-2.9	1,060	1,037	-23	-2.2

Written Answers to

[1 December, 2014]

Unstarred Questions 217

1	2	3	4	5	6	7	8	9
Odisha	16,092	15,794	-298	-1.9	3,857	3,807	-50	-1.3
West Bengal	29,918	29,739	-179	-0.6	7,544	7,524	-20	-0.3
Sikkim	228	228	0	0.0	82	82	0	0.0
Andaman- Nicobar	140	105	-35	-25	40	32	-8	-20
Eastern Region	72,322	71,128	-1,194	-1.7	16,909	16,609	-300	-1.8
Arunachal Pradesh	391	348	-43	-11.0	139	126	-13	-9.4
Assam	5,259	4,767	-492	-9.4	1,380	1,257	-123	-8.9
Manipur	386	368	-18	-4.7	141	138	-3	-2.1
Meghalaya	1,043	875	-168	-16.1	335	297	-38	-11.3
Mizoram	258	241	-17	-6.6	87	82	-5	-5.7
Nagaland	376	356	-20	-5.3	140	118	-22	-15.7
Tripura	726	642	-84	-11.6	310	266	-44	-14.2
North-Eastern Region	8,439	7,597	-842	-10.0	2,528	2,141	-387	-15.3
ALL INDIA	643,914	617,662	-26,252	-4.1	148,166	141,160	-7,006	-4.7

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

Note: Energy figures for Andhra Pradesh includes the figures of undivided Andhra Pradesh (including Telangana area) for the period Apr-May, 2014. Energy figures of Telengana are w.e.f. June 2014. Peak figures for Andhra Pradesh and Telangana are w.e.f. June, 2014. This is due to bifurcation of Andhra Pradesh into Andhra Pradesh and Telangana w.e.f. June, 2014.

Statement-II*A. Forecast of Electrical Energy Consumption in Domestic Category
from 2015-16 to 2019-20 (All figures in MUs)*

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
Delhi	13152	13948	14792	15687	16636
Haryana	8053	8878	9554	10185	10858
Himachal Pradesh	1589	1686	1780	1878	1983
Jammu and Kashmir	2746	3075	3444	3857	4320
Punjab	10969	11818	12414	12915	13437
Rajasthan	13393	15461	17258	18842	20572
Uttar Pradesh	36682	41938	46132	49408	52916
Uttarakhand	2369	2559	2763	2984	3223
Chandigarh	682	723	767	813	862
Northern Region	89634	100086	108903	116570	124806
Goa	972	1050	1119	1188	1260
Gujarat	14588	16007	17521	19133	20893
Chhattisgarh	4624	5097	5538	5989	6477
Madhya Pradesh	11885	13727	15032	16047	17131
Maharashtra	26221	27815	29362	30848	32409
D and N Haveli	107	125	140	154	170
Daman and Diu	103	113	122	132	142
Western Region	58500	63934	68834	73490	78482
Andhra Pradesh	24201	26907	29366	32050	34979
Karnataka	13895	14884	15791	16752	17773
Kerala	9826	10472	11054	11669	12317
Tamil Nadu	25563	27701	29983	32415	35009
Puducherry	732	773	806	837	866
Southern Region	74217	80737	87000	93724	100944
Bihar	7446	9148	11024	13285	16010
Jharkhand	4746	5290	5969	6512	7104
Odisha	7219	7731	8240	8741	9272
West Bengal	14845	16859	18664	20143	21662

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
Sikkim	145	155	160	177	185
Eastern Region	34401	39183	44057	48857	54233
Assam	3216	3443	3722	4024	4351
Manipur	410	499	594	693	808
Meghalaya	326	345	366	389	412
Nagaland	311	336	371	405	442
Tripura	552	620	676	731	791
Arunachal Pradesh	107	123	135	148	163
Mizoram	367	440	484	524	566
North Eastern Region	5287	5806	6349	6914	7534
Andaman and Nicobar	137	150	163	177	193
Lakshadweep	27	28	30	31	33
ALL INDIA	262202	289924	315335	339762	366224

*B. Forecast of Electrical Energy Consumption in Commercial Category
from 2015-16 to 2019-20 (All figures in MUs)*

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
Delhi	8325	9158	10073	11081	12189
Haryana	3046	3432	3825	4221	4644
Himachal Pradesh	664	711	754	800	849
Jammu and Kashmir	466	522	585	655	734
Punjab	3306	3610	3923	4243	4590
Rajasthan	3041	3352	3695	4074	4491
Uttar Pradesh	9861	11281	12783	14358	16127
Uttarakhand	1386	1455	1528	1605	1685
Chandigarh	539	572	607	643	683
Northern Region	30635	34094	37774	41680	45990
Goa	296	320	345	369	395
Gujarat	7485	8331	9184	10125	11161
Chhattisgarh	855	952	1014	1081	1152

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
Madhya Pradesh	2774	3176	3600	4045	4545
Maharashtra	18536	20203	21828	23584	25482
D and N Haveli	26	28	30	33	35
Daman and Diu	49	54	58	63	68
Western Region	30022	33064	36060	39299	42838
Andhra Pradesh	9882	10855	11901	13024	14230
Karnataka	8268	9202	10192	11237	12389
Kerala	4447	4893	5335	5764	6227
Tamil Nadu	11603	12810	14176	15727	17495
Puducherry	253	273	293	313	334
Southern Region	34453	38034	41897	46065	50675
Bihar	1042	1192	1364	1560	1785
Jharkhand	523	577	630	681	736
Odisha	1362	1455	1546	1643	1747
West Bengal	6123	6659	7234	7851	8510
Sikkim	60	65	71	75	79
Eastern Region	9111	9948	10845	11810	12857
Assam	842	937	1014	1088	1166
Manipur	53	64	78	94	114
Meghalaya	64	68	71	74	78
Nagaland	68	79	89	99	110
Tripura	84	92	102	112	124
Arunachal Pradesh	25	28	30	33	37
Mizoram	33	39	45	50	57
North Eastern Region	1169	1307	1429	1551	1685
Andaman and Nicobar	73	78	83	89	95
Lakshadweep	9	10	10	11	11
ALL INDIA	105472	116535	128099	140506	154153

*C. Forecast of Electrical Energy Consumption in Agriculture Category
from 2015-16 to 2019-20 (All figures in MUs)*

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
Delhi	29	28	26	25	24
Haryana	12433	13053	13704	14387	15105
Himachal Pradesh	44	46	48	50	52
Jammu and Kashmir	404	453	507	568	636
Punjab	20138	22266	23152	23733	24329
Rajasthan	19678	20777	21766	22739	23747
Uttar Pradesh	19748	23279	26126	28805	31746
Uttarakhand	377	392	408	424	441
Chandigarh	1	1	2	2	2
Northern Region	72854	80295	85739	90734	96082
Goa	35	38	41	44	48
Gujarat	19740	21216	22778	24431	26192
Chhattisgarh	2959	3157	3369	3594	3836
Madhya Pradesh	12378	13738	14958	15998	17110
Maharashtra	18990	20164	21412	22739	24150
D and N Haveli	3	3	3	3	3
Daman and Diu	0	0	0	0	0
Western Region	54105	58316	62560	66809	71338
Andhra Pradesh	29750	31994	34414	37022	39834
Karnataka	18237	19420	20764	22026	23386
Kerala	329	341	348	355	362
Tamil Nadu	14608	15087	15569	16058	16555
Puducherry	98	100	103	105	108
Southern Region	63022	66942	71196	75565	80245
Bihar	1789	2003	2204	2424	2666
Jharkhand	93	99	104	109	114
Odisha	239	264	292	324	359
West Bengal	2281	2497	2734	2994	3279

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
Sikkim	0	0	0	0	0
Eastern Region	4401	4863	5334	5851	6419
Assam	104	114	126	138	152
Manipur	1	1	1	1	1
Meghalaya	1	1	1	1	1
Nagaland	0	0	0	0	0
Tripura	58	62	67	72	78
Arunachal Pradesh	0	0	0	0	0
Mizoram	14	17	20	23	23
North Eastern Region	177	195	214	235	255
Andaman and Nicobar	0	0	0	0	0
Lakshadweep	0	0	0	0	0
ALL INDIA	194559	210611	225044	239194	254338

*D. Forecast of Electrical Energy Consumption in Industrial Category
from 2015-16 to 2019-20 (All figures in MUs)*

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
Delhi	4407	4758	5137	5546	5989
Haryana	15127	17347	19227	21223	23333
Himachal Pradesh	5621	5964	6326	6710	7116
Jammu and Kashmir	1393	1560	1747	1957	2191
Punjab	18103	19922	21082	22271	23530
Rajasthan	15476	17388	19522	21902	24558
Uttar Pradesh	24226	27324	30673	34285	38295
Uttarakhand	5371	5691	6029	6387	6767
Chandigarh	381	402	424	448	473
Northern Region	90106	100355	110167	120729	132253
Goa	2151	2327	2518	2723	2944
Gujarat	36308	39487	42544	45693	49077
Chhattisgarh	7876	8480	9119	9806	10544

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
Madhya Pradesh	12475	14292	15953	17444	19076
Maharashtra	51153	58817	60100	65134	70620
D and N Haveli	5108	5415	5740	6085	6450
Daman and Diu	2000	2130	2264	2405	2556
Western Region	117071	130948	138238	149291	161268
Andhra Pradesh	28144	30777	33659	36813	40264
Karnataka	13458	14799	15830	16937	18128
Kerala	5244	5504	5748	5993	6249
Tamil Nadu	35700	38837	42242	45938	49949
Puducherry	1412	1446	1482	1518	1557
Southern Region	83958	91363	98960	107199	116147
Bihar	5468	6049	6684	7378	8144
Jharkhand	14750	15762	16773	17849	18996
Odisha	14884	15562	16160	16808	17525
West Bengal	27165	29672	32428	35462	38800
Sikkim	55	64	69	75	79
Eastern Region	62322	67109	72114	77572	83544
Assam	1815	1962	2116	2276	2445
Manipur	82	94	106	118	132
Meghalaya	1040	1123	1232	1347	1435
Nagaland	22	25	27	30	33
Tripura	103	115	128	142	157
Arunachal Pradesh	109	122	134	147	162
Mizoram	64	73	83	94	107
North Eastern Region	3236	3514	3825	4154	4472
Andaman and Nicobar	14	16	17	18	20
Lakshadweep	2	2	3	3	3
ALL INDIA	356709	393306	423324	458967	497705

*E. Electrical Energy Consumption in Others
from 2015-16 to 2019-20 (All figures in MUs)*

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
Delhi	3789	4009	4242	4489	4750
Haryana	2673	2918	3180	3460	3765
Himachal Pradesh	891	943	997	1054	1113
Jammu and Kashmir	1976	2213	2479	2776	3109
Punjab	1911	2077	2237	2408	2593
Rajasthan	4840	5270	5645	5982	6339
Uttar Pradesh	4212	4558	4898	5229	5585
Uttarakhand	471	503	537	574	613
Chandigarh	136	142	149	156	163
Northern Region	20899	22632	24363	26127	28031
Goa	373	394	415	435	457
Gujarat	3862	4096	4325	4566	4823
Chhattisgarh	2224	2366	2526	2681	2791
Madhya Pradesh	12873	14062	15363	16789	18351
Maharashtra	10625	11599	12637	13756	14978
D and N Haveli	16	17	18	19	20
Daman and Diu	9	10	11	12	13
Western Region	29983	32544	35294	38258	41433
Andhra Pradesh	7415	7822	8252	8708	9187
Karnataka	7433	7783	8116	8440	8784
Kerala	1133	1201	1272	1346	1425
Tamil Nadu	3614	3810	4014	4228	4453
Puducherry	117	124	132	141	150
Southern Region	19712	20740	21786	22863	23999
Bihar	3037	3375	3750	4168	4633
Jharkhand	1660	1747	1832	1922	2016
Odisha	2518	2781	2990	3208	3464

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
West Bengal	2818	2986	3167	3360	3568
Sikkim	86	96	103	115	126
Eastern Region	10118	10985	11842	12772	13806
Assam	695	747	801	859	921
Manipur	134	148	162	178	195
Meghalaya	216	227	237	249	261
Nagaland	111	127	140	153	169
Tripura	195	209	224	241	258
Arunachal Pradesh	74	83	91	100	110
Mizoram	112	124	141	154	167
North Eastern Region	1538	1664	1797	1933	2081
Andaman and Nicobar	50	53	56	59	62
Lakshadweep	1	1	1	2	2
ALL INDIA	82302	88619	95140	102014	109413

*F. Forecast of Total Electrical Energy Consumption
from 2015-16 to 2019-20 (All figures in MUs)*

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
Delhi	29702	31900	34270	36827	39587
Haryana	41333	45629	49491	53477	57705
Himachal Pradesh	8810	9350	9905	10492	11113
Jammu and Kashmir	6985	7823	8762	9813	10991
Punjab	54427	59693	62808	65570	68478
Rajasthan	56429	62248	67887	73539	79707
Uttar Pradesh	94729	108379	120612	132085	144669
Uttarakhand	9974	10600	11265	11974	12729
Chandigarh	1739	1841	1948	2062	2182
Northern Region	304129	337461	366947	395840	427162
Goa	3827	4130	4437	4759	5104

States/UTs	2015-16	2016-17	2017-18	2018-19	2019-20
Gujarat	81983	89137	96352	103948	112146
Chhattisgarh	18537	20051	21566	23151	24800
Madhya Pradesh	52385	58995	64906	70323	76213
Maharashtra	125525	138599	145340	156061	167639
D and N Haveli	5260	5588	5931	6293	6678
Daman and Diu	2161	2307	2455	2612	2779
Western Region	289680	318806	340986	367147	395358
Andhra Pradesh	99392	108356	117592	127616	138494
Karnataka	61290	66088	70692	75393	80459
Kerala	20979	22410	23756	25126	26581
Tamil Nadu	91088	98245	105984	114367	123460
Puducherry	2612	2716	2815	2915	3016
Southern Region	275362	297816	320839	345417	372009
Bihar	18782	21767	25025	28815	33237
Jharkhand	21772	23474	25307	27073	28966
Odisha	26222	27794	29228	30723	32367
West Bengal	53231	58674	64228	69810	75819
Sikkim	346	380	403	442	469
Eastern Region	120353	132088	144192	156863	170859
Assam	6672	7203	7779	8386	9036
Manipur	680	807	941	1084	1250
Meghalaya	1647	1764	1908	2059	2186
Nagaland	513	567	626	687	754
Tripura	991	1098	1197	1298	1408
Arunachal Pradesh	314	355	390	429	472
Mizoram	590	692	773	845	921
North Eastern Region	11407	12486	13615	14788	16026
Andaman and Nicobar	275	296	319	343	369
Lakshadweep	39	42	44	47	49
ALL INDIA	1001244	1098995	1186942	1280444	1381833