

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.367
ANSWERED ON 11.08.2016

POWER GENERATION

†*367. SHRI ANANTKUMAR HEGDE:

Will the Minister of POWER
be pleased to state:

- (a) the details of various power projects commissioned during the last two years and the current-year, along with the quantum of electricity generated thereof;
- (b) whether electricity production registered an increase in the country during the year 2016-17 and if so, the rate of increase registered during the current year in comparison to the last year;
- (c) whether the rate of increase is different in public and private sectors, and if so, the details thereof; and
- (d) whether the production cost of electricity has been reduced and if so, the details thereof?

A N S W E R

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

(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.367 ANSWERED IN THE LOK SABHA ON 11.08.2016 REGARDING POWER GENERATION.

(a) : The details of various power projects commissioned during the last two years and the current year, along with the quantum of electricity generated thereof is given at Annex.

(b) : The electricity generation in the country increased to 391,163.27 Million Units (MUs) during the year 2016-17 (April, 2016 to July, 2016) from 365,146.09 MUs during 2015-16 (April, 2015 to July, 2015), thus registering a growth of 7.13%.

(c) : The electricity production in public and private sectors in the country during 2016-17 (April, 2016 – July, 2016) vis-à-vis 2015-16 (April, 2015– July, 2015) is given below :

Sector	2016-17 (April to July)	2015-16 (April to July)	% increase
Public Sector (Central + State)	265,293.66	255,237.2	3.94
Private Sector	123,885.45	107,777.67	14.95

(d) : The cost of power of various generating stations is determined by the appropriate commission. The cost of power of Central Generating Stations including NTPC Ltd. is determined by the Central Electricity Regulatory Commission (CERC).

As per information received from NTPC Ltd., the cost of power as billed to the power utilities from its thermal power stations for the current year 2016-17 (April, 2016 to June, 2016) has reduced to Rs.3.04 per kWh from Rs.3.19 per kWh during the corresponding period last year i.e. 2015-16 (April, 2015 to June, 2015). This is mainly on account of rationalization of freight charges for domestic coal and reduction of imports.

ANNEX REFERRED TO IN PART (a) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 367 ANSWERED IN THE LOK SABHA ON 11.08.2016 REGARDING POWER GENERATION.

DETAILS OF POWER STATION PROJECTS COMMISSIONED DURING 2014-15, 2015-16 AND 2016-17 (UP TO JULY, 2016) AND THE GENERATION						
Power Station / Unit	Unit No.	Capacity (MW)	State	Generation (MU)		
				2016-17 (Upto July, 2016)*	2015-16	2014-15
GOINDWAL SAHIB TPP	1	270	PUNJAB	30.18	36.98	-
GOINDWAL SAHIB TPP	2	270	PUNJAB	105.86	17.41	-
RAJPURA TPP	2	700	PUNJAB	1623.21	4102.92	2748.4
TALWANDI SABO TPP	1	660	PUNJAB	-	-	-
TALWANDI SABO TPP	2	660	PUNJAB	846.8	2296.89	1522.7
TALWANDI SABO TPP	3	660	PUNJAB	1126.66	944.91	-
CHHABRA TPP	4	250	RAJASTHAN	512.62	1478.16	409.12
KALISINDH TPS	1	600	RAJASTHAN	1296.2	3546.02	1209.12
KALISINDH TPS	2	600	RAJASTHAN	705.89	2436.74	-
RAMGARH CCPP	6	50	RAJASTHAN	81.14	179.27	136.95
ANPARA TPS	6	500	UTTAR PRADESH	502.65	47.19	-
ANPARA TPS	7	500	UTTAR PRADESH	320.75	126.08	-
PRAYAGRAJ TPP	1	660	UTTAR PRADESH	911.17	234.78	-
LALITPUR TPS	1	660	UTTAR PRADESH	649.38	27.76	-
LALITPUR TPS	2	660	UTTAR PRADESH	-	-	-
LALITPUR TPS	3	660	UTTAR PRADESH	4.59	-	-
DHUVARAN CCPP	5	376.1	GUJARAT	-	10.62	11.62
SIKKA REP. TPS	3	250	GUJARAT	182.27	699.13	3.07
SIKKA REP. TPS	4	250	GUJARAT	386.08	140.06	-
BHAVNAGAR CFBC TPP	1	250	GUJARAT	-	-	-
DGEN MEGA CCPP	2	400	GUJARAT	-	750.06	-
SHRI SINGHAJI TPP	2	600	MADHYA PRADESH	-	2153.15	314.31
MARWA TPS	2	500	CHHATTISGARH	105.2	-	-
SASAN UMTTP	1	660	MADHYA PRADESH	1738	5210.81	4137.37
SASAN UMTTP	5	660	MADHYA PRADESH	1818.31	5321.77	1770.47
SASAN UMTTP	6	660	MADHYA PRADESH	1640.54	5274.46	190.91
SEIONI TPP	1	600	MADHYA PRADESH	193.67	3.96	-
NIGRI TPP	1	660	MADHYA PRADESH	1275.88	2894.24	1688.79
NIGRI TPP	2	660	MADHYA PRADESH	1385.33	2451.94	69.39
ANUPPUR TPP	1	600	MADHYA PRADESH	1144.82	2873.04	-
ANUPPUR TPP	2	600	MADHYA PRADESH	126.07	17.68	-
VINDHYACHAL STPS	13	500	MADHYA PRADESH	1307.86	1475.49	-
SWASTIK KORBA TPP	1	25	CHHATTISGARH	-	-	-
RAIKHEDA TPP	1	685	CHHATTISGARH	278.41	701.94	21.65
RAIKHEDA TPP	2	685	CHHATTISGARH	176.81	88.29	-
BALCO TPS	1	300	CHHATTISGARH	535.52	1521.34	-
BALCO TPS	2	300	CHHATTISGARH	545.07	59.63	-
SALORA TPP	1	135	CHHATTISGARH	-	-	137.12
AKALTARA TPS	4	600	CHHATTISGARH	1349.85	2894.36	404.91
BARADARHA TPS	2	600	CHHATTISGARH	1026.04	92.52	1.65
TAMNAR TPP	3	600	CHHATTISGARH	478.68	66.36	-
TAMNAR TPP	4	600	CHHATTISGARH	-	-	5.88
BANDAKHAR TPP	1	300	CHHATTISGARH	127.83	216.22	-
UCHPINDA TPP	1	360	CHHATTISGARH	-	87.7	-
UCHPINDA TPP	2	360	CHHATTISGARH	-	35.34	-
MAUDA TPS	3	660	MAHARASHTRA	2.86	3.89	-
KORADI TPS	8	660	MAHARASHTRA	1053.66	1124.86	-

KORADI TPS	9	660	MAHARASHTRA	285.64	71.5	-
PARLI TPS	8	250	MAHARASHTRA	-	-	-
CHANDRAPUR (MAHARAS)	8	500	MAHARASHTRA	217.52	196.55	-
CHANDRAPUR (MAHARAS)	9	500	MAHARASHTRA	3.85	-	-
TIRORA TPS	5	660	MAHARASHTRA	766.72	4227.89	1741.94
AMARAVATI TPS	3	270	MAHARASHTRA	266.16	1278.42	10.14
AMARAVATI TPS	4	270	MAHARASHTRA	324.31	1183.68	28.03
AMARAVATI TPS	5	270	MAHARASHTRA	175.25	633.4	17.62
DHARIWAL TPP	2	300	MAHARASHTRA	507.1	369.16	173.92
DAMODARAM SANJEEVAI	1	800	ANDHRA PRADESH	1117.75	2948.11	811.88
DAMODARAM SANJEEVAI	2	800	ANDHRA PRADESH	1664.27	2065.27	270.32
KAKATIYA TPS	2	600	TELANGANA	1026.68	427.48	-
SINGARENI TPP	1	600	TELANGANA	128.16	1.17	-
SIMHAPURI TPS	4	150	ANDHRA PRADESH	257.07	1132.08	-
VIZAG TPP	1	520	ANDHRA PRADESH	519.91	463.75	-
VIZAG TPP	2	520	ANDHRA PRADESH	339.87	0.96	-
PAINAMPURAM TPP	1	660	ANDHRA PRADESH	1791.74	4233.49	5.6
PAINAMPURAM TPP	2	660	ANDHRA PRADESH	1009	2655.54	-
KONDAPALLI ST-3 CCPP	1	371	ANDHRA PRADESH	451.55	497.28	-
KONDAPALLI ST-3 CCPP	2	371	ANDHRA PRADESH	171.27	118.27	-
GREL CCPP (Rajahmundry)	1	240	ANDHRA PRADESH	14.64	589.64	-
GREL CCPP (Rajahmundry)	2	144	ANDHRA PRADESH	8.73	-	-
GREL CCPP (Rajahmundry)	3	240	ANDHRA PRADESH	141.04	-	-
GREL CCPP (Rajahmundry)	4	144	ANDHRA PRADESH	83.31	-	-
BELLARY TPS	3	700	KARNATAKA	83	24.57	-
YERMARUS TPP	1	800	KARNATAKA	-	1.05	-
MUTHIARA TPP	1	600	TAMIL NADU	1007.89	2324.45	1092.69
MUTHIARA TPP	2	600	TAMIL NADU	477.57	464.31	-
NEYVELI TPS-II EXP	2	250	TAMIL NADU	250.94	423.33	-
TUTICORIN (JV) TPP	1	500	TAMIL NADU	1002.65	1904.33	6.79
TUTICORIN (JV) TPP	2	500	TAMIL NADU	939.95	1653.78	-
KUDANKULAM	1	1000	TAMIL NADU	2896.63	2261.26	2610.52
ITPCL TPP	1	600	TAMIL NADU	697.69	1131.38	-
ITPCL TPP	2	600	TAMIL NADU	512.84	-	-
MUZAFFARPUR TPS	3	195	BIHAR	-	2.88	0.02
BARH II	5	660	BIHAR	1270.51	851.54	0.71
NABI NAGAR TPP	1	250	BIHAR	-	0.13	-
BOKARO TPS 'A' EXP	1	500	JHARKHAND	-	0.3	-
RAGHUNATHPUR TPP	1	600	WEST BENGAL	546.6	148.56	12.27
RAGHUNATHPUR TPP	2	600	WEST BENGAL	-	108.98	-
DERANG TPP	1	600	ORISSA	1140.67	3245.78	348.22
DERANG TPP	2	600	ORISSA	1328.76	2997.82	167.23
IND BARATH TPP	1	350	ORISSA	-	21.58	-
SAGARDIGHI TPS	3	500	WEST BENGAL	162.1	-	-
HALDIA TPP	1	300	WEST BENGAL	704.1	2045.3	265.3
HALDIA TPP	2	300	WEST BENGAL	720.03	1587.96	90.93
BONGAIGAON TPP	1	250	ASSAM	565.23	117.12	-
AGARTALA GT	6	25.5	TRIPURA	49.94	131.38	5.7
TRIPURA CCPP	2	363.3	TRIPURA	630.4	1338.39	304.44
MONARCHAK CCPP	1	65.4	TRIPURA	12.93	127.06	0.7
MONARCHAK CCPP	2	35.6	TRIPURA	-	-	-

PARBATI-III HPS	4	130	HIMACHAL PRADESH	196.85	269.85	31.2
RAMPUR HPS	3	68.67	HIMACHAL PRADESH	169.1	313.36	129.9
RAMPUR HPS	4	68.67	HIMACHAL PRADESH	169.19	325.13	211.19
RAMPUR HPS	6	68.67	HIMACHAL PRADESH	151.17	370.05	41.1
KOLDAM	1	200	HIMACHAL PRADESH	426.32	559.63	0.12
KOLDAM	2	200	HIMACHAL PRADESH	412.24	581.26	0.13
KOLDAM	3	200	HIMACHAL PRADESH	410.59	565.45	-
KOLDAM	4	200	HIMACHAL PRADESH	389.83	602.26	-
KASHANG-I	1	65	HIMACHAL PRADESH	-	-	-
BAGLIHAR II HPS	1	150	JAMMU AND KASHMIR	308.99	53.03	-
BAGLIHAR II HPS	2	150	JAMMU AND KASHMIR	349.03	2.57	-
BAGLIHAR II HPS	3	150	JAMMU AND KASHMIR	326.24	-	-
SRINAGAR HPS	1	82.5	UTTARAKHAND	148.65	245.64	-
SRINAGAR HPS	2	82.5	UTTARAKHAND	141	221.46	-
SRINAGAR HPS	3	82.5	UTTARAKHAND	131.79	239.88	-
SRINAGAR HPS	4	82.5	UTTARAKHAND	122.33	194.39	-
LOWER JURALA HPS	1	40	TELANGANA	22.65	8.98	-
LOWER JURALA HPS	2	40	TELANGANA	-	-	-
LOWER JURALA HPS	3	40	TELANGANA	-	-	-
LOWER JURALA HPS	4	40	TELANGANA	-	-	-
TEESTA LOW DAM-IV HPS	1	40	WEST BENGAL	94.18	17.6	-
TEESTA LOW DAM-IV HPS	2	40	WEST BENGAL	84.42	1.17	-
TEESTA LOW DAM-IV HPS	3	40	WEST BENGAL	16.47	-	-
JORETHANG LOOP	1	48	SIKKIM	62.64	36.21	-
JORETHANG LOOP	2	48	SIKKIM	71.16	38.85	-
* PROVISIONAL BASED ON ACTUAL-CUM-ASSESSMENT						
Note: Generation from conventional sources (Thermal, Hydro and Nuclear) stations of 25 MW and above only.						

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4142
ANSWERED ON 11.08.2016

FINANCIAL ASSISTANCE TO TANGEDCO

4142. SHRI NANDI YELLAIAH:
DR. RAVINDRA BABU:
SHRI E. AHAMED:

Will the Minister of POWER
be pleased to state:

(a) whether Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO) has been slipped to grade "C" by rating agencies as per the framework approved by your Ministry and if so, the details thereof;

(b) whether Power Finance Corporation (PFC) and Rural Electrification Corporation (REC) are providing financial assistance to State Generation and Distribution Corporations for procurement of energy meters and other electrical equipments;

(c) if so, the complete details of energy meters and other equipments purchased by Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO) against the financial assistance provided by PFC and REC during the last three years;

(d) whether any representations were received from several Small Scale Industries (SSI) Units in power sector regarding non-payment of their dues to TANGEDCO for supply of energy meters and if so, the details thereof including the names of such SSI units whose payments have been withheld by TANGEDCO along with the amount due to each one of them; and

(e) whether Power Finance Corporation (PFC) proposes to stop financial assistance/ funding to TANGEDCO for procurement of energy meters till all outstanding payments are cleared and if not, the reasons therefor?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : As per "State Distribution Utilities Fourth Annual Integrated Rating" published by Power Finance Corporation (PFC) Ltd., TANGEDCO has been rated 'C+', downgraded from rating 'B'. Key reasons for the rating of 'C+' assigned to

.....2.

TANGEDCO includes:

- (i) Very high level of accumulated losses of over Rs. 65,000 crore as on 31.03.2015
- (ii) Deterioration in AT&C losses, low billing efficiency
- (iii) High power purchase cost
- (iv) Poor Cost coverage ratio owing to continuous higher level of losses year after year
- (v) Tariff petition not filed during the last three years viz. FY 2015, FY 2016 & FY 2017 and no tariff order issued for FY 2016 / FY 2017.

(b) & (c) : Power Finance Corporation (PFC) Ltd. and Rural Electrification Corporation (REC) Ltd. have sanctioned distribution schemes, which are composite in nature and includes all infrastructure works including procurement of energy meters and other electrical equipments. The details of the sanctions to TANGEDCO during the last three years by PFC Ltd. & REC Ltd. are as given below:

YEAR	Sanction	
	PFC Ltd.	REC Ltd.
2013-14	Rs. 2,843 Crore	Rs.1369.88 Crore
2014-15	Rs.3,167 Crore	Rs.1145.58 Crore
2015-16	Rs.3669 Crore	Rs.1213.67 Crore

(d) : Shri Salim Ansari, Ex-Hon'ble Member of Parliament, forwarded a representation of M/s. Capital Power System Ltd., Noida and a letter from Shri Ramsinh Rathwa, Hon'ble Member of Parliament have been received regarding non-payment of dues by M/s. TANGEDCO to SSI units. Details of the SSI units with payments due as received from Shri Ramsinh Rathwa, Hon'ble MP to each unit is furnished below:

Sl. No.	Name of SSI	Total Amount
1.	M/s. Avon Meters Pvt. Ltd., Derabassi	6.44 Cr.
2.	M/s. Capital Power Systems Ltd., Nodia	9.50 Cr
3.	M/s. Genus Innovation Ltd., Jaipur	2.68 Cr.
4.	M/s. Landis + GYr Ltd., Kolkata	75.00 Lac
5.	M/s. HPL Electric & Power Pvt. Ltd., Gurgaon	3.51 Cr.
6.	M/s. Secure Meters Ltd., Udaipur	18.00 Cr.

(e) : The energy meter supply is as per the contractual obligations between the contracting suppliers and TANGEDCO. PFC Ltd. has no role to play in any contractual issue between either of the parties.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4150
ANSWERED ON 11.08.2016

GAS BASED POWER PROJECTS

4150. SHRI GODSE HEMANT TUKARAM:

Will the Minister of POWER
be pleased to state:

- (a) whether various power generation units in the public sector are not functioning properly thus leading to shortage of power in the country ;
- (b) if so, the details thereof;
- (c) whether State Governments have submitted any proposals for setting up of gas based power projects, and if so, the details thereof, State-wise;
- (d) whether the Union Government has accorded approval to all such power projects; and
- (e) if so, the details thereof and if not, the reasons therefor?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b): No, Madam.

(c) to (e): Electricity is a concurrent subject. As per the Electricity Act, 2003, electricity generation is a delicensed activity and any State or generating companies set up by the State may establish a gas based power project taking into consideration issues like viability, availability of gas, etc.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4168
ANSWERED ON 11.08.2016

CONSUMPTION OF ELECTRICITY

4168. SHRI RAMSINH RATHWA:

Will the Minister of POWER
be pleased to state:

- (a) the total quantum of power/ electricity consumed annually in the country *vis-a-vis* the developed countries of the world;
- (b) the steps taken/being taken by the Government to ensure the power/electricity security of the country;
- (c) whether Government proposes to provide minimum electricity to the entire population in the country; and
- (d) if so, the details thereof and the steps being taken in this regard?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : As reported on International Energy Agency (IEA) website, the total quantum of power/electricity consumed for the year 2012-13 in the country *vis-a-vis* the developed countries of the world is given at Annex.

(b) to (d): Government is working towards ensuring energy security in the country through power generation, using a mix of various fuel resources. Electricity is a concurrent subject. To ensure minimum supply of electricity to all the consumers in a State / UT is within the purview of the respective State Government / State Power Utility. The Government of India supplements the efforts of the State Governments by establishing power plants in Central Sector through Central Power Sector Units and allocating power there from to them.

The steps taken/being taken to assist the state in supply of electricity to consumers, inter-alia, are:-

- (i) During the 12th Plan (2012-17), capacity addition of about 86,565 MW from conventional sources and about 19,500 MW from renewable sources have been achieved till 30th June, 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. As on 03.08.2016, the coal stock in the power plants is 30.3 Million Tonnes (MT), which is sufficient for 22 days of operation of power plants as against the normative stock of 21 days. At present, there is no power station with critical coal stock.
- (iii) During the 12th Plan (2012-17), 89,813 ckm of transmission lines and 2,66,033 MVA of transformation capacity have been completed till 30th June, 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 Ujjwal 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.

ANNEX

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4168 ANSWERED IN THE LOK SABHA ON 11.08.2016.

Total quantum of power/ electricity consumed for the year 2012-13 in the country vis-a-vis the developed countries of the world

Sl. No.	Name of the country	2012-13
		Total Consumption (GWh)
1	Australia	206024
2	Canada	485191
3	France	440710
4	Germany	518089
5	Italy	287398
6	Japan	950256
7	Korea	487125
8	United Kingdom	317301
9	United States	3782151
10	South Africa	196066
11	Brazil	487381
12	People's Republic of China	4499666
13	Russian Federation	744091
14	India	824301

Figures of Developed Countries have been obtained from IEA website except India

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4169
ANSWERED ON 11.08.2016

NATIONAL POWER TRAINING INSTITUTE

4169. SHRI K.C. VENUGOPAL:

Will the Minister of POWER
be pleased to state:

- (a) whether the Government has taken any steps to start the functioning of National Power Training Institute in Alappuzha;
- (b) if so, the details thereof;
- (c) whether the Government has fixed any time frame for the commencing of courses and training programmes in the institute, if so, the details thereof;
- (d) if not, the reasons therefor; and
- (e) whether Government proposes to renovate and upgrade the existing infrastructure in the power sector with the latest state-of-the-art technology, if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) to (d) : The Government has sanctioned setting up of a new National Power Training Institute (NPTI) at Alappuzha, Kerala on 11th December, 2013, with a completion schedule of three years. The outlay approved for this institute is Rs.56.35 crore. NPTI has taken over the possession of 15 acres of land from the Government of Kerala. Power Grid Corporation of India Limited (PGCIL) has been appointed as Project Management Consultant for all infrastructural works. NTPC Ltd. has been appointed as Project Management Consultant for Simulator works. A total of Rs.6.39 Crore has been released so far for the establishment of this Institute.

(e) : The renovation and upgradation of existing infrastructure with the latest state-of-the-art technology are taken up from time to time depending on technological advancements. Government has sanctioned a new project for renovation, modernization and augmentation of training infrastructure of nine institutes of NPTI on 12th December, 2013 with an outlay of Rs.73.97 Crore.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4183
ANSWERED ON 11.08.2016

FUEL LESS MACHINES/DEVICES

4183. SHRI SUSHIL KUMAR SINGH:

Will the Minister of POWER
be pleased to state:

(a) whether the Government is aware that various fuel less (Energy Saver) machines/devices with efficiency approval 76% have been developed by the individual Innovators and said machines tested by the Central Institute of Agriculture Engineering (ICAR), IIT and others are being awarded by the National and International Institutions;

(b) if so, the details thereof;

(c) whether the Government is providing fund/grant under various schemes for production of electricity especially under small and hydro power schemes; and

(d) if so, the steps being taken by the Government to provide fund/assistance to such innovators, whose efficiency was approved as 76%?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : Yes, Madam. Some of the inventions relating to fuel less (Energy Saver) machines/devices are as under:-

- i. IIT Bombay has developed and patented energy saver device, Super Heat Recovery Water Heater. This device can be integrated on existing or new Refrigeration or Air Conditioning Systems (R&AC Systems), to recover heat without consuming any additional power.

- ii. IIT Delhi has developed devices/technologies for (a) Harnessing draught Animal Power for running screw pump, chaff-cutter, atta-chakki, paddy thresher, sprinkler and charging batteries (b) Bullock Driven Tractor (BDT) (c) Pedal operated Treadle Pump for Irrigation (d) Ultra-Micro (Pico) Hydel Power Package for Rural Applications (e) Utilization of bio-Gas.
- iii. 'Fuelstar-Fuel saver' Combustion catalyst was purchased and tested at ICAR-Central Institute of Agricultural Engineering, Bhopal. The equipment had claimed 15% diesel saving. No fuel saving was observed during the testing of catalyst on tractor engine under laboratory conditions.

(c) & (d) : Ministry of New and Renewable Energy is providing Central Financial Assistance (CFA) for the purpose of generation of Electricity under Wind, Solar, Bio-power and Small Hydro Power schemes.

There is no specific scheme to provide fund/assistance to innovators of fuel less (Energy Saver) machines/devices. However, there is a scheme to provide grant for research and development in power sector.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4194
ANSWERED ON 11.08.2016

ADVISORY COMMITTEE FOR POWER ISSUES

4194. SHRI S.P. MUDDAHANUME GOWDA:

Will the Minister of POWER
be pleased to state:

- (a) whether the Union Government has set up any Advisory Committee to discuss the issues relating to power sector and to suggest reforms, if so, the details thereof;
- (b) whether the said committee has submitted its recommendations to the Government, if so, the salient features of the recommendations; and
- (c) the steps taken/being taken to implement the recommendations of the committee?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : 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 (now Union Minister for Railways) in the year 2014. The Advisory Group has submitted its report on 22nd December, 2014.

The report of the Advisory Group covers contemporary issues and challenges in respect of the Ministries of Power, Coal and Renewable Energy. The main recommendations of the Advisory Group, inter-alia, include enhancement of coal production; opening up of the coal sector; coal block auction; coal linkage rationalization; swapping of coal linkage; amendments to Electricity Act, Tariff Policy, Standard Bidding Documents; 24X7 Power Supply; distribution sector reforms; improvement in working of Central Electricity Authority (CEA); accelerating hydro power projects; role of Power System Operation Corporation (POSOCO); phasing out of old and inefficient thermal power plants; large scale capacity addition of renewable energy; green energy transmission corridors; incentivizing renewable capacity addition; obligating generating companies to set up renewable power generation; priority in purchase of renewable power by distribution utilities etc.

(c) : The recommendations made by the Advisory Group contains various short, medium and long term measures. Steps have already been taken towards implementation of recommendations of the Advisory Group which, inter-alia,

Coal:

- Transparent auction of coal blocks;
- 100 % crushed coal supply by coal India to all power plants;
- setting up of new washeries;
- introduction of 3rd party sampling of coal;
- incorporation of separate SPVs for implementation of three major critical rail projects;
- MoU signed between Coal India Limited (CIL) and Ministry of Railways for procurement of 2000 railway wagons;
- rationalisation of coal linkages for 17 thermal power plants;
- guidelines regarding flexibility in utilization of domestic coal;

Power:

Generation

- CEA has identified 57 power plants, which are more than 25 year old, for its conversion to Super Critical Technology;
- collection of information for phasing out of old & inefficient thermal power plants by CEA;
- formulation of state specific action plan for 24X7 Power for All;

Transmission

- The Union Cabinet approved formation of POSOCO as an independent Government Company;
- prepared 20 years perspective plan for transmission;

Distribution

- introduced comprehensive reforms in distribution sector by implementing Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS) and Ujwal Discoms Assurance Yojana (UDAY);

Reforms & Energy Efficiency

- formulated amendments in Electricity Act;
- Tariff Policy notified;
- amendments in the Standard Bidding Documents;
- Perform Achieve and Trade(PAT) cycle-II started from April, 2016;
- under demand side management national LED programme launched for domestic LED and LED street lighting;

Renewable Energy:

- implementation of green energy corridors;
- the potential for renewable energy have been reassessed to 1096 GW and a target for renewable energy has been increased to 175 GW by 2022;
- enhancement of solar Renewable Purchase Obligation (RPO) to 8% or as fixed by Central Government by March, 2020;
- introduction of Renewable Generation Obligation (RGO) for new Coal/Lignite based thermal plants;
- ensuring affordable renewable power through bundling of renewable power;
- no inter-state transmission charges and losses for solar and wind power;
- reintroduced Accelerated Depreciation (AD) benefit for wind power;
- a policy for repowering of wind power projects.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4206
ANSWERED ON 11.08.2016

FINANCIAL SUPPORT TO POWER PLANT

4206. SHRI P.R. SUNDARAM:

Will the Minister of POWER
be pleased to state:

- (a) whether the Government proposes to increase the financial and logistic support for Thermal Power Stations in the country, if so, the details thereof and the decisions taken by the Government in this regard;
- (b) whether the steep rise in price of coal and other raw material and machineries used in Thermal Power stations has gone uncontrollable, if so, the details thereof and the reasons therefor; and
- (c) the remedial steps being taken by the Government in this regard?

A N S W E R

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

(SHRI PIYUSH GOYAL)

- (a) : Following actions have been taken by the Government to increase the financial and logistic support for thermal power stations in the country:
- (i) The Government, on 04.05.2016, approved the proposal for allowing flexibility in utilization of domestic coal amongst power generating stations to reduce the cost of power generation. Under the scheme, the Annual Contracted Quantity (ACQ) of each individual coal linkage as per Fuel Supply Agreement, is to be aggregated as consolidated ACQ for each State and Company owning Central Generating Stations instead of individual generating station. The State/Central Gencos would have flexibility to utilize their coal in most efficient and cost effective manner in their own power plants as well as by transferring coal to other State/Central Gencos Power plants for generation of cheaper power.

- (ii) Government has notified policy guidelines for grant of Bridge Linkage to specified end use plants of Central and State Public Sector Undertakings which have been allotted coal mines or blocks. Bridge linkages applications for public sector power projects in prescribed formats have been approved.
 - (iii) Subsequent to the cancellation of Coal Blocks by the Hon'ble Supreme Court order dated 24.09.2014, nine Coal Mines linked to End Use Power Plants totaling to 9,940 MW have been allotted through e-Auction to the winning bidders. In addition to the above, thirty-eight coal mines for linked End Use Power Plants totaling to 40,090 MW capacity have also been allotted through e-Allotment to Central/State Sector utilities.
 - (iv) Policy has been issued for automatic transfer of coal linkage/Letter of Assurance (LoA) granted to the old plants while scrapping and replacing them with new plants of supercritical technology in respect of State and Central sector Power plants.
 - (v) Further, Government has also approved a scheme to revive and improve utilization of the stranded gas based power generation capacity in the country which has been lying idle or under-utilized due to shortfall in the domestic production of natural gas in the country, by supply of Spot Re-Gasified Liquefied Natural Gas (RLNG) (e-bid RLNG) to both Stranded power plants and plants receiving domestic gas selected through e-reverse e-bidding process. The other concessions envisaged under the scheme include-custom duty waiver on imported LNG; waiver of Value Added Tax, Central Sales Tax, Octroi and Entry Tax; waiver of Service Tax on regasification and transportation; reduction in pipeline tariff charges, regasification charges and marketing margin; exemption from transmission charges and losses for stranded gas based power projects & support from Power System Development Fund (PSDF), Government of India, if required.
- (b) : No, Madam.
- (c) : Does not arise.

GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.4214
ANSWERED ON 11.08.2016

PENDING PROJECTS DUE TO ENVIRONMENT CLEARANCES

4214. SHRI BADRUDDIN AJMAL:

Will the Minister of POWER
be pleased to state:

- (a) whether several power projects are pending/suffering due to non-accordance, delayed accordance of/environmental clearances from the Ministry of Environment, Forest and Climate Change;
- (b) if so, the details thereof, project wise and State-wise including North East States, till date;
- (c) the steps taken by the Government to accord early environment clearance to pending power projects;
- (d) whether Government has provided any financial assistance under the State Governments including North East States; and
- (e) if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : As informed by Ministry of Environment, Forests & Climate Change (MoEF&CC), being the nodal Ministry for according environment clearance, fifteen Hydroelectric Projects and ten Thermal Power Projects are pending for Environmental Clearance as on 5.8.2016 as per details given in Annex-I & II respectively.

(c) : The Environment Impact Assessment (EIA) Notification, 2006 mandates prior Environmental Clearance (EC) to various developmental projects including River Valley projects. Proposals seeking EC are appraised in a timely manner within the stipulated time-frame of EIA Notification, 2006 and amendments thereof. The proposals are processed for EC as per the provisions under the EIA Notification. These projects are accorded prior EC within the stipulated timeframe provided all the requisite documents are received from the project proponents and other stake holders in time.

(d) & (e) : Government of India is providing financial assistance to States including North Eastern Region (NER) under the Restructured Accelerated Power Development & Reforms (R-APDRP) Scheme subsumed in Integrated Power Development Scheme (IPDS) and "Deendayal Upadhyaya Gram Jyoti Yojana" (DDUGJY), launched by Ministry of Power on 3rd December, 2014. In addition, Ministry of Development of North Eastern Region (DoNER) is providing financial assistance/grant to various power projects in NER under Non Lapsable Central Pool of Resources (NLCPR).

ANNEX REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 4214 ANSWERED IN THE LOK SABHA ON 11.08.2016.

State-wise details of River Valley & HEP Projects under consideration for Environmental Clearance (EC) as on date (i.e. 5.8.2016)

HYDROELECTRIC POWER PROJECTS

Arunachal Pradesh

Sl. No.	Hydroelectric Project Details	Capacity/ River
(A)	<u>Public Sector Project</u>	Nil
(B)	<u>Private Projects</u>	
1	Project Name: Naying HEP (1000 MW) Project District: West Siang State: Arunachal Pradesh Company: M/s. Naying DSC Power Ltd	1000 MW River Siyom
2	Project Name: Talong Londa HEP Project (225 MW) District: East Kameng State: Arunachal Pradesh Company: M/s GMR Londa Hydropower Pvt. Ltd.	225 MW Kameng river
3	Project Name: Pemashelpu HEP Project (80 MW) District: West Siang State: Arunachal Pradesh Company: M/s. Mechuka Hydro Power Pvt. Ltd	80 MW Siang river
4	Project Name: Kalai-II HEP Project (1200 MW) District: Anjaw State: Arunachal Pradesh Company: M/s. Kalai Power Pvt. Ltd	1200 MW
5	Project Name: Etalin HEP Project (3097 MW) District: Dibang State: Arunachal Pradesh Company: M/s. Jindal Power Ltd	3097 MW Dri & Tenga River
6	Project Name: Mago Chu HEP (96 MW) Project District: Tawang State: Arunachal Pradesh Company: M/s. Sew Mago Chu Power Corporation Pvt. Ltd	
7	Project Name: Nyukcharong Chu HEP (96 MW) Project District: Tawang State: Arunachal Pradesh Company: M/s. New Sew Nyukcharong Chu Power Corporation Pvt. Ltd	96 MW Tawang River
8	Project Name: New Melling HEP (90 MW) Project District: Tawang State: Arunachal Pradesh Company: M/s. Sew Energy Pvt. Ltd	90 MW
9	Project Name: Tagurshit HEP (74 MW) Project District: West Siang State: Arunachal Pradesh Company: M/s. L & T Arunachal Hydro Power Ltd	74 MW

Himachal Pradesh

Sl. No.	Hydroelectric Project Details	Capacity/River
<u>(A) Public Sector Projects</u>		Nil
10	Project Name: Chhatru HEP Project (120 MW) District: Lahul & Spiti State: Himachal Pradesh Company: M/s DCM Shriram Infrastructure Ltd	120 MW River Chandra
11	Project Name: Sach-Khas HEP (260 MW) project District: Chamba State: Himachal Pradesh Company: M/s. L& T Himachal Hydropower Ltd	260 MW River Chenab
12	Project Name: Rupin HEP (45 MW) project District: Lahul & Spiti State: Himachal Pradesh Company: M/s. SB Power Pvt. Ltd	45 MW Chenab River

Uttarakhand

S. No.	Hydroelectric Project Details	Capacity/River
<u>(A) Private Sector Projects</u>		Nil
<u>(B) Public Sector Projects</u>		
13	Project Name: Jalam Tamak HEP (108 MW) Project District : Chamoli State: Uttarakhand Company: M/s. THDC India Ltd	108 MW Dhualiganga River
14	Project Name: Nand Prayag Langasu HEP (100 MW) Project District : Chamoli State: Uttarakhand Company: M/s. UJVN Ltd	100 MW Alaknanda

West Bengal

S. No.	Hydroelectric Project Details	Capacity/River
<u>(A) Private Sector Projects</u>		Nil
<u>(B) Public Sector Projects</u>		
15	Turga Pumped Storage Project District: Purulia District, West Bengal Company: M/s. West Bengal State Electricity Distribution Company Limited	1000 MW

ANNEX REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 4214 ANSWERED IN THE LOK SABHA ON 11.08.2016.

State-wise details of Thermal Power Projects under consideration for Environmental Clearance as on 05.08.2016

Sl. No.	Project Details
Andhra Pradesh	
1.	No. J-13012/112/2010-IA. II (T) Name: 4x1000 MW Pudimadaka Super Thermal Power Project at Villages Lalamkoduru, Rambilli, Veduruvdda & Pudimadaka, District Visakhapatnam, Andhra Pradesh Company: M/s NTPC Ltd.
Gujarat	
2.	No. J-13012/10/2012-IA. II (T) Name: 2000 MW Gas Based Combined Cycle Power Plant (CCPP) at Village Godhra, in Kutch Distt., Gujarat Company: M/s. Nana Layja Power Co. Ltd.
Madhya Pradesh	
3.	No. J-13012/59/2010-IA. II (T) Name: 4x660 MW, Stage-I, Barethi Super Thermal Power Project near Village Barethi, Tehsil Rajnagar, District Chhatarpur, Madhya Pradesh Company: M/s NTPC Ltd.
Orissa	
4.	No. J-13012/4/2009-IA. II (T) 4000 MW (6x660 MW) Coal based Ultra Mega Power Project (UMPP) near Bhedabahal Village in Sundergarh Tehsil of District Sundergarh, in Odisha Company: M/s Orissa Integrated Power Ltd.
Rajasthan	
5.	No. J-13012/01/2015-IA. I (T) Name: Expansion of 1,080 MW TPP by adding 1x660 MW Lignite based Super Critical Power Plant at Village Bhadresh, Tehsil & District Barmer, Rajasthan Company: M/s Raj West Power Ltd.
Telangana	
6.	No. J-13012/18/2015-IA. I (T) Name: 5x800 MW Super Critical Coal Based Yadadri Thermal Power Station at Village Veerlapalem, District Nalgonda, Telangana Company: M/s. Telangana State Power Generation Corporation Ltd. (TSGENCO)
7.	No. SEIAA/AP/NLG /2012-3587 Name: 200 MW (1x135 MW & 1x65 MW) coal based CFBC technology based Thermal Power Plant in Village Pedaveedu, Mattampali Mandal, District Nalgonda, Telangana Company: MG Power Projects Ltd.
8.	No. J-13012/02/2015-IA. I (T) Name: Manuguru Thermal Power Project of 1080 (4x270) MW at Villages Ramanujavaram, Eddulabayyaram & Seetharampuram, Mandals Manuguru & Pinapaka, District Khammam, Telangana Company: M/s Telangana State Power Generation Corporation Ltd. (TSGENCO)
Uttar Pradesh	
9.	No. J-13012/35/2013-IA. I (T) Name: 1x660 MW Coal Based Supercritical Panki Extension Power Project at Panki, District Kanpur, Uttar Pradesh Company: M/s Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited
10.	No. J-13012/17/2015-IA. I (T) Name: Setting up of 2x660 MW Coal Based Thermal Power Project near Village Malwan, District Etah, Uttar Pradesh Company: M/s. Jawaharpur Vidyut Utpadan Nigam Ltd. (JVUNL)

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4242
ANSWERED ON 11.08.2016

DEATH DUE TO ELECTRICITY

4242. DR. MANOJ RAJORIA:

Will the Minister of POWER
be pleased to state:

- (a) whether there is any provision of filing FIR against the officers/Government servants who are responsible for death of human beings/animals due to electricity under the Electricity Act, 2013;
- (b) if so, the details thereof along with cess filed during each of the last three years including action taken thereon in the State of Rajasthan and other parts of the country, State/UT-wise;
- (c) whether instances of non-filing of FIR has been reported to the Union Government; and
- (d) if so, the details thereof and if not, the reasons therefor?

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. There is no such provision in the Electricity Act, 2003 regarding filing of FIR. However, section 161(1) of the Electricity Act, 2003 provides that the accident occurring in connection with the generation, transmission, distribution, supply or use of electricity in or in connection with, any part of the electric lines or electrical plant of any person and the accident results or is likely to have resulted in loss of human or animal like or in any injury to a human being or an animal shall be intimated to the Electrical Inspector or other authorised person by the Appropriate Government, in the manner and form prescribed by the Appropriate Government.

Section 161(2) provides that the Appropriate Government, if it thinks fit require any Electrical Inspector, or any other person appointed by it in this behalf, to inquire and report-

- (a) as to the cause of any accident affecting the safety of the public, which may have been occasioned by or in connection with, the generation, transmission distribution, supply or use of electricity, or
- (b) as to the manner in, and extent to, which the provisions of this Act or rules and regulations made thereunder or of any licence, so far as those provisions affect the safety of any person, have been complied with.

Further, Central Government has notified the Intimation of Accidents (Form and Time of Service of Notice) Rules, 2005, which provides that the electrical accident in the electrical installations under the jurisdiction of the Central Government, shall be reported telegraphically to the Electrical Inspector within 24 hours of the occurrence of the accident and the written report in the prescribed Form to be submitted to the Electrical Inspector within 48 hours of the accident.

(b) to (d) : No specific information is available in this regard.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4254
ANSWERED ON 11.08.2016

LAND ACQUISITION FOR NTPC PROJECTS

†4254. SHRI KRUPAL BALAJI TUMANE:

Will the Minister of POWER
be pleased to state:

- (a) the details of NTPC power plants in Maharashtra;
- (b) whether land was acquired from local farmers for the setting up of these power plants;
- (c) whether assurance was given to them to give permanent job to some members of their family in these power plants; and
- (d) if so, the details of the members of families of local farmers given jobs so far, plant-wise particularly in Mauda power plant?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : Presently, NTPC Ltd. has only one operating power plant namely 'Mauda Super Thermal Power Station' with a capacity of 1660 MW in Maharashtra.

(b) : Land was acquired by Maharashtra Industrial Development Corporation (MIDC) from local farmers.

(c) : No, Madam. Rehabilitation at Mauda Project is undertaken in line with the approval accorded by State Rehabilitation Authority (SRA), Government of Maharashtra.

(d) : In view of answer to (c) above, question doesn't arise.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4278
ANSWERED ON 11.08.2016

ACCESS TO ELECTRICITY

4278. SHRI PRATHAP SIMHA:
SHRIMATI KOTHAPALLI GEETHA:

Will the Minister of POWER
be pleased to state:

- (a) whether it is a fact that 300 million people in the country do not have access to electricity, power cuts are rampant and per capita power consumption is significantly lower than the world average, if so, the details thereof;
- (b) whether the country is likely to experience the energy surplus of 1.1 per cent during the current financial year as per the 2016-17 report of the Central Electricity Authority, if so, the details thereof;
- (c) whether only people who are connected to the grid and have access to electricity at present are taken into consideration while calculating power demand and which is the reason for energy surplus, if so, the details thereof;
- (d) whether the State Discoms are unable to buy power due to their poor financial health, if so, the details thereof and the corrective measures being taken to improve their financial status; and
- (e) whether Government proposes for a robust power pricing mechanism in coming days, if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : As per census 2011, out of total 24,67,40,228 households in the country, 16,59,35,192 households were using electricity as the main source of lighting.

The per capita consumption of electricity in India is less than the global average. As reported on International Energy Agency (IEA) website, the per capita electricity consumption in the country and Global Average is given under:

Year	Per Capita Consumption of India (Kwh)	Global Average Per Capita Consumption (Kwh)*
2011-12	884	2972
2012-13	914	3026

* Basic data obtained from IEA website except India. Data of global average is from January to December.

(b) : As per the Load Generation Balance Report (LGBR) for the year 2016-17, published by the Central Electricity Authority (CEA), the energy availability in the country is likely to be in excess of energy requirement by about 1.1% during the year as per details given below.

ENERGY				PEAK			
Requirement	Availability	Surplus (+) / Deficit (-)		Peak Demand	Peak Met	Surplus (+) / Deficit(-)	
(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
1,214,642	1,227,895	13,252	1.1	165,253	169,503	4,250	2.6

(c) : No, Madam. The unconnected households, which are planned to be connected to the electricity grid during the year by the respective State Governments, are also considered in the projections made by the state utilities for assessing energy requirement for the forthcoming year.

(d) : A scheme namely Ujwal Discom Assurance Yojana (UDAY) was notified by Ministry of Power on 20.11.2015 for Operational and Financial Turnaround of Power Distribution Companies (DISCOMs) with an objective to improve the operational and financial efficiency of State owned DISCOMs. Participating States would undertake to achieve operational and financial turnaround of DISCOMs with the measures outlined in the Scheme. Two new schemes have also 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. These will also strengthen the DISCOMs financially.

(e) : As per the Electricity Act, 2003, the tariff for power is determined by the appropriate Commission. The following initiatives have been taken for efficient pricing of power:-

- i. Ministry of Power, Government of India has notified the revised Tariff Policy on 28.01.2016 with the objective, inter alia, to ensure availability of electricity to consumers at reasonable and competitive rates.
- ii. To bring the competitiveness and transparency, Discovery of Efficient Electricity Price (DEEP) portal has been launched for procurement of power for short term by the power utilities.
- iii. The flexibility in utilization of domestic coal has been introduced which aims at reduction in cost of power.
- iv. Transmission system has been augmented to achieve transfer of power from surplus region to the deficit region thus reducing the power purchase cost.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4281
ANSWERED ON 11.08.2016

POWER REFORMS

4281. SHRI P. KARUNAKARAN:
DR. RAVINDRA KUMAR RAY:

Will the Minister of POWER
be pleased to state:

- (a) whether DISCOMS in various States are continuously incurring losses year by year; if so, the details thereof and the factors responsible thereto;
- (b) the names of the States which have been effectively implementing power reforms in the country;
- (c) the details of transmission and distribution losses in those States;
- (d) whether it is a fact that in spite of reforms T&D losses have not come down; and
- (e) if so, the details thereof and the steps being taken/proposed to be taken to reduce T&D losses?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : As per 'Report on Performance of State Power Utilities', made by Power Finance Corporation (PFC) Ltd., the aggregate losses of utilities selling directly to consumers for the years 2012-13 to 2014-15 is furnished below:

	2012-13	2013-14	2014-15
Profit/(Loss) on accrual basis (Rs. in crore)	(70,835)	(67,041)	(56,206)
Profit/(Loss) on subsidy received basis (Rs. in crore)	(71,621)	(67,336)	(58,275)

The state-wise and utility-wise details are given at Annex-I.

Losses are mainly due to Technical and Commercial reasons. The technical losses are due to energy dissipated in the conductors and equipment used for transmission, transformation and distribution of power. Commercial losses are on account of energy consumed but revenue not realized which is mainly due to pilferage by hooking of lines, bypassing the meters, defective meters, errors in meter reading and billing, estimating un-metered supply of electricity and non-recovery of the billed amount etc.

(b) : Names of the States which have implemented power reforms in the country after the Electricity Act, 2003 are given in Annex-II.

Further, as on 09.08.2016, the States of Jharkhand, Chhattisgarh, Rajasthan, Uttar Pradesh, Gujarat, Bihar, Punjab, J&K, Haryana, Uttarakhand, Goa, Karnataka, Andhra Pradesh and Manipur have signed Memorandum of Understanding (MOU) under the Ujwal DISCOM Assurance Yojana (UDAY) with an objective of operational and financial turnaround of DISCOMs.

(c) to (e) : The overall Aggregate Technical & Commercial (AT&C) losses for utilities selling directly to consumers for the years 2012-13 to 2014-15 including Transmission & Distribution losses is as given below:

	2012-13	2013-14	2014-15
AT&C Loss (%)	25.48	22.58	24.62

The state-wise and utility-wise details are given at Annex-III.

The responsibility of reduction of AT&C losses in the Distribution network is primarily with the Discoms and power departments/utilities. However, to facilitate the reduction of AT&C losses and to improve power distribution system, the Government has launched various programmes/schemes such as Integrated Power Development Scheme (IPDS), Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), National Electricity Fund (NEF) and Ujwal DISCOM Assurance Yojana (UDAY).

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4281 ANSWERED IN THE LOK SABHA ON 11.08.2016.

Details of State-wise and Utility-wise loss incurred in crores.								
Region	State	Utility	2012-13		2013-14		2014-15	
			Profit/ (Loss) after tax on accrual basis	Profit/ (Loss) on subsidy received basis	Profit/ (Loss) after tax on accrual basis	Profit/ (Loss) on subsidy receive d basis	Profit/ (Loss) after tax on accrual basis	Profit/ (Loss) on subsidy received basis
Eastern	Bihar	BSEB	-1,088	-1,088		0		0
		NBPDCL	-56	-56	-74	-74	-297	-491
		SBPDCL	-84	-84	-269	-269	-748	-748
	Bihar Total		-1,227	-1,227	-343	-343	-1,044	-1,239
	Jharkhand	JSEB	-2,668	-2,668	-3,950	-3,950		0
		JBVNL		0	-71	-71	-37	-37
	Jharkhand Total		-2,668	-2,668	-4,021	-4,021	-37	-37
	Odisha	CESU	-316	-316	-199	-199	-202	-202
		NESCO	-77	-77	-45	-45	-123	-123
		SESCO	-34	-34	-11	-11	-379	-379
		WESCO	-132	-132	-87	-87	-224	-224
	Odisha Total		-559	-559	-342	-342	-929	-929
	Sikkim	Sikkim PD	39	39	33	33	-126	-126
	Sikkim Total		39	39	33	33	-126	-126
	West Bengal	WBSEDCL	82	82	19	19	20	20
		West Bengal Total		82	82	19	19	20
Eastern Total			-4,332	-4,332	-4,654	-4,654	-2,116	-2,310
North Eastern	Arunachal Pradesh	Arunachal PD	-255	-255	-428	-428	-257	-257
		Arunachal Pradesh Total		-255	-428	-428	-257	-257
	Assam	APDCL	-418	-568	-528	-693	-578	-578
		Assam Total		-418	-528	-693	-578	-578
	Manipur	Manipur PD	-315	-315	-194	-194		0
		MSPDCL		0		0	0	0
	Manipur Total		-315	-315	-194	-194	0	0
	Meghalaya	MePDCL	-221	-221	-295	-295	-202	-202
		Meghalaya Total		-221	-295	-295	-202	-202
	Mizoram	Mizoram PD	-200	-200	-192	-192	-192	-192
		Mizoram Total		-200	-192	-192	-192	-192
	Nagaland	Nagaland PD	-212	-212	-191	-191	-315	-315
		Nagaland Total		-212	-191	-191	-315	-315
	Tripura	TSECL	-107	-107	-62	-62	-60	-82
		Tripura Total		-107	-62	-62	-60	-82
North Eastern Total			-1,730	-1,880	-1,891	-2,056	-1,603	-1,625
Northern	Delhi	BSES Rajdhani	21	21	8	8	63	63
		BSES Yamuna	25	25	11	11	19	19
		TPDDL	310	310	334	334	336	336
	Delhi Total		356	356	353	353	418	418
	Haryana	DHBVNL	-1,352	-1,352	-2,089	-2,089	-636	-636
		UHBVNL	-2,297	-2,297	-1,465	-1,465	-1,481	-1,481
	Haryana Total		-3,649	-3,649	-3,554	-3,554	-2,117	-2,117
	Himachal Pradesh	HPSEB Ltd.	-340	-340	-137	-137	-125	-125
		Himachal Pradesh Total		-340	-137	-137	-125	-125
	Jammu & Kashmir	J&K PDD	-3,129	-3,129	-2,387	-2,387	-3,913	-3,913
		Jammu & Kashmir Total		-3,129	-2,387	-2,387	-3,913	-3,913
	Punjab	PSPCL	261	94	249	249	133	-1,100
	Punjab Total		261	94	249	249	133	-1,100
	Rajasthan	AVVNL	-3,905	-3,905	-4,843	-4,843	-3,593	-3,593
		JDVVNL	-4,285	-4,285	-5,299	-5,299	-4,146	-4,146
		JVVNL	-4,161	-4,161	-5,503	-5,503	-4,735	-4,735
	Rajasthan Total		-12,351	-12,351	-15,645	-15,645	-12,474	-12,474

	Uttar Pradesh	DVVN	-3,364	-3,364	-5,521	-5,521	-2,936	-2,936
		KESCO	-545	-545	-674	-674	-168	-168
		MVVN	-2,033	-2,033	-3,263	-3,263	-1,994	-1,994
		Pash VVN	-1,303	-1,303	-3,172	-3,172	-1,577	-1,577
		Poorv VVN	-2,533	-2,533	-4,095	-4,095	-2,000	-2,000
	Uttar Pradesh Total		-9,778	-9,778	-16,724	-16,724	-8,675	-8,675
	Uttarakhand	Ut PCL	-16	-16	323	323	-260	-260
	Uttarakhand Total		-16	-16	323	323	-260	-260
Northern Total			-28,647	-28,814	-37,521	-37,521	-27,012	-28,245
Southern	Andhra Pradesh	APCPDCL	-7,718	-7,718	-811	-811		0
		APEPDCL	-1,681	-1,681	-136	-136	-722	-722
		APNPDC	-3,436	-3,445	-31	-31		0
		APSPDCL	-4,673	-4,678	-401	-401	-1,675	-1,827
	Andhra Pradesh Total		-17,508	-17,522	-1,379	-1,379	-2,397	-2,549
	Karnataka	BESCOM	-433	-433	76	76	113	113
		CHESCOM	-270	-337	-16	-72	40	37
		GESCOM	-189	-189	38	38	-110	-110
		HESCOM	41	41	-576	-576	30	30
		MESCOM	13	13	0	0	14	14
	Karnataka Total		-838	-905	-478	-534	88	85
	Kerala	KSEB	241	241	140	140		0
		KSEBL		0	-24	-24	-1,273	-1,273
	Kerala Total		241	241	116	116	-1,273	-1,273
	Puducherry	Puducherry PD	-308	-308	-60	-60	157	157
	Puducherry Total		-308	-308	-60	-60	157	157
	Tamil Nadu	TANGEDCO	-11,679	-12,064	-13,985	-14,052	-12,757	-12,757
	Tamil Nadu Total		-11,679	-12,064	-13,985	-14,052	-12,757	-12,757
	Telangana	TSNPDC		0		0	-1,343	-1,741
		TSSPDCL		0		0	-1,171	-1,171
	Telangana Total			0		0	-2,513	-2,912
Southern Total			-30,092	-30,559	-15,786	-15,909	-18,695	-19,249
Western	Chhattisgarh	CSPDCL	-498	-498	-630	-630	-1,554	-1,569
	Chhattisgarh Total		-498	-498	-630	-630	-1,554	-1,569
	Goa	Goa PD	-285	-285	-4	-4	-17	-17
	Goa Total		-285	-285	-4	-4	-17	-17
	Gujarat	DGVCL	25	25	52	52	51	51
		MGVCL	21	21	19	19	29	29
		PGVCL	11	11	10	10	11	11
		UGVCL	14	14	14	14	17	17
	Gujarat Total		71	71	95	95	108	108
	Madhya Pradesh	MP Madhya Kshetra VVCL	-1,593	-1,595	-2,672	-2,672	-2,728	-2,765
		MP Paschim Kshetra VVCL	-1,425	-1,425	-1,811	-1,811	-1,061	-1,061
		MP Purv Kshetra VVCL	-1,432	-1,432	-1,887	-1,893	-1,162	-1,175
	Madhya Pradesh Total		-4,450	-4,452	-6,370	-6,376	-4,950	-5,001
	Maharashtra	MSEDCL	-871	-871	-280	-280	-366	-366
	Maharashtra Total		-871	-871	-280	-280	-366	-366
Western Total			-6,034	-6,036	-7,190	-7,196	-6,780	-6,845
Grand Total			-70,835	-71,621	-67,041	-67,336	-56,206	-58,275

ANNEX REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 4281
ANSWERED IN THE LOK SABHA ON 11.08.2016.

STATES WHICH HAVE IMPLEMENTED POWER REFORMS IN THE COUNTRY

Sl. No	SEBs re-organized	Other States/UTs which have Electricity Departments and not SEBs
1	Delhi	Nagaland
2	Haryana	Mizoram
3	Rajasthan	Manipur
4	Uttar Pradesh	Goa,
5	Uttaranchal	J&K**
6	Andhra Pradesh	Arunachal Pradesh
7	Karnataka	Tripura *
8	Assam	Pondicherry
9	Orissa	Chandigarh
10	West Bengal	Daman & Diu
11	Gujarat	Dadra & Nagar Haveli
12	Maharashtra	Andaman & Nicobar
13	Madhya Pradesh	Lakshadweep
14	Chhattisgarh	Sikkim
15	Tamil Nadu	
16	Punjab	
17	Meghalaya	
18	Himachal Pradesh	
19	Bihar	
20	Jharkhand	
21	Kerala	
Total	21	14

*Tripura has corporatized its Electricity Department.

** For Jammu & Kashmir: Electricity Act 2003 is not applicable

ANNEX REFERRED TO IN REPLY TO PARTS (c) to (e) OF UNSTARRED QUESTION NO. 4281 ANSWERED IN THE LOK SABHA ON 11.08.2016.

Details of state-wise and Utility-wise AT&C losses for 2012-13 to 2014-15						
Region	State	Utility	2012-13	2013-14	2014-15	
Eastern	Bihar	BSEB	59.40			
		NBPDCL	50.85	41.93	41.76	
		SBPDCL	45.77	48.70	45.28	
		Bihar Total	54.64	46.33	43.99	
	Jharkhand	JSEB	47.49	26.30		
		JBVNL			47.01	
		Jharkhand Total	47.49	26.30	47.01	
	Sikkim	Sikkim PD	53.51	71.23	42.37	
	Sikkim Total		53.51	71.23	42.37	
	West Bengal	WBSEDCL	34.43	32.05	35.35	
	West Bengal Total		34.43	32.05	35.35	
	Odisha	NESCO		39.61	36.47	38.36
				49.36	41.18	42.57
				41.87	41.24	41.03
				43.43	38.48	37.08
Odisha Total			42.88	39.19	39.28	
Eastern Total		42.04	36.24	39.64		
North Eastern	Arunachal Pradesh	Arunachal PD	60.26	68.20	67.83	
	Arunachal Pradesh Total		60.26	68.20	67.83	
	Assam	APDCL	31.85	30.25	26.00	
	Assam Total		31.85	30.25	26.00	
	Manipur	Manipur PD	85.49	43.55		
		MSPDCL			49.62	
	Manipur Total		85.49	43.55	49.62	
	Meghalaya	MePDCL	41.71	39.77	34.69	
	Meghalaya Total		41.71	39.77	34.69	
	Mizoram	Mizoram PD	27.55	32.53	33.51	
	Mizoram Total		27.55	32.53	33.51	
	Nagaland	Nagaland PD	75.30	38.37	78.48	
	Nagaland Total		75.30	38.37	78.48	
	Tripura	TSECL	34.45	41.81	38.02	
	Tripura Total		34.45	41.81	38.02	
North Eastern Total		39.97	35.92	35.29		
Northern	Delhi	BSES Rajdhani	15.16	16.19	10.76	
		BSES Yamuna	17.94	15.51	19.68	
		TPDDL	13.12	9.75	10.31	
	Delhi Total		15.22	14.09	12.90	
	Haryana	DHBVNL	28.31	30.89	30.71	
		UHBVNL	36.97	38.61	34.83	
	Haryana Total		32.55	34.33	32.52	
	Himachal Pradesh	HPSEB Ltd.	11.90	14.82	15.21	
	Himachal Pradesh Total		11.90	14.82	15.21	
	Jammu & Kashmir	J&K PDD	60.87	49.14	59.04	
	Jammu & Kashmir Total		60.87	49.14	59.04	
	Punjab	PSPCL	17.52	17.87	17.56	
	Punjab Total		17.52	17.87	17.56	
	Rajasthan	AVVNL	19.90	22.06	28.13	
		JDVVNL	18.97	25.71	26.99	
JVVNL		20.91	31.08	32.00		
Rajasthan Total		20.00	26.77	29.28		

	Uttar Pradesh	DVVN	45.69	36.47	40.18
		KESCO	37.61	34.29	32.02
		MVVN	45.83	14.43	35.18
		Pash VVN	33.39	23.49	22.19
		Poorv VVN	52.37	20.09	42.91
	Uttar Pradesh Total		42.85	24.67	33.82
	Uttarakhand	Ut PCL	23.18	19.01	18.82
	Uttarakhand Total		23.18	19.01	18.82
Northern Total			28.89	24.86	28.06
Southern	Andhra Pradesh	APCPDCL	15.64	17.54	
		APEPDCL	10.15	6.57	7.67
		APNPDCL	13.09	20.80	
		APSPDCL	12.74	11.77	12.01
	Andhra Pradesh Total		13.70	14.77	10.55
	Karnataka	BESCOM	20.45	18.93	17.59
		CHESCOM	30.42	33.92	21.64
		GESCOM	18.28	30.45	21.25
		HESCOM	20.44	20.42	19.49
		MESCOM	14.57	14.83	15.72
	Karnataka Total		20.78	22.02	18.71
	Kerala	KSEB	12.32	11.45	
		KSEBL		22.99	17.64
	Kerala Total		12.32	16.48	17.64
	Puducherry	Puducherry PD	9.13	16.18	16.64
	Puducherry Total		9.13	16.18	16.64
	Tamil Nadu	TANGEDCO	20.71	22.35	24.74
	Tamil Nadu Total		20.71	22.35	24.74
	Telangana	TSNPDCL			16.49
		TSSPDCL			11.91
	Telangana Total				13.23
Southern Total			17.40	19.08	18.22
Western	Chhattisgarh	CSPDCL	25.12	23.17	27.84
	Chhattisgarh Total		25.12	23.17	27.84
	Goa	Goa PD	14.14	10.72	13.31
	Goa Total		14.14	10.72	13.31
	Gujarat	DGVCL	10.40	10.83	10.81
		MGVCL	14.94	14.77	11.47
		PGVCL	30.41	24.12	25.18
		UGVCL	14.37	9.10	10.21
	Gujarat Total		19.87	15.93	16.06
	Madhya Pradesh	MP Madhya Kshetra VVCL	29.97	29.60	32.47
		MP Paschim Kshetra VVCL	28.16	21.15	30.79
		MP Purv Kshetra VVCL	36.40	34.83	27.09
	Madhya Pradesh Total		31.15	28.03	30.26
	Maharashtra	MSEDCL	21.95	14.39	19.75
	Maharashtra Total		21.95	14.39	19.75
Western Total			23.36	18.37	21.59
Grand Total			25.48	22.58	24.62

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4296
ANSWERED ON 11.08.2016

USE OF POWER FOR COOKING

4296. SHRI JAYADEV GALLA:

Will the Minister of POWER
be pleased to state:

- (a) whether the vice chairman of NITI Aayog has suggested that electricity be made as a clean cooking alternative to LPG;
- (b) if so, the details thereof;
- (c) whether the Government proposes to explore the possibility of implementing this suggestion; and
- (d) if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) to (d) : The Vice Chairman, NITI Aayog had expressed his view that electricity be made as a clean fuel for cooking in a blog on NITI Aayog's website. The views expressed in the blogs do not represent the views of either the Government of India or NITI Aayog.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4304
ANSWERED ON 11.08.2016

POWER CUT

4304. SHRI KAMAL NATH:
SHRI JYOTIRADITYA M. SCINDIA:

Will the Minister of POWER
be pleased to state:

- (a) whether there is surplus power in the country at present and if so, the details thereof;
- (b) whether a large number of people in the country do not have access to electricity, facing frequent power cuts and per capita power consumption is significantly lower than the world average, if so, the details thereof; and
- (c) whether the Government proposes to take any concrete steps to address the various such issues being faced by the power sector and if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : As per the Load Generation Balance Report (LGBR) for the year 2016-17, published by the Central Electricity Authority (CEA), the energy availability in the country is likely to be in excess of energy requirement by about 1.1% during the year as per details given below:

ENERGY				PEAK			
Requirement	Availability	Surplus (+) / Deficit (-)		Peak Demand	Peak Met	Surplus (+) / Deficit(-)	
(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
1,214,642	1,227,895	13,252	1.1	165,253	169,503	4,250	2.6

(b) : As per census 2011, out of total 24,67,40,228 households in the country, 16,59,35,192 households were using electricity as main source of lighting.

The per capita consumption of electricity of India is less than the global average. As reported on International Energy Agency (IEA) website, the per capita electricity consumption in the country and Global Average is as under:

Year	Per Capita Consumption of India (Kwh)	Global Average Per Capita Consumption(Kwh)*
2011-12	884	2972
2012-13	914	3026

* Basic data obtained from IEA website except India. Data of global average is from January to December.

(c) : The steps taken/ being taken to address the various such issues being faced by the power sector inter-alia are:-

- (i) During the 12th Plan (2012-17), capacity addition of about 86,565 MW from conventional sources and about 19,500 MW from renewable sources have been achieved till 30th June, 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. As on 03.08.2016, the coal stock in the power plants is 30.3 Million Tonnes (MT), which is sufficient for 22 days of operation of power plants as against the normative stock of 21 days. At present, there is no power station with critical coal stock.
- (iii) During the 12th Plan (2012-17), 89,813 ckm of transmission lines and 2,66,033 MVA of transformation capacity have been completed till 30th June, 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.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4312
ANSWERED ON 11.08.2016

ELECTRIFICATION OF VILLAGES

4312. SHRIMATI RANJEET RANJAN:

Will the Minister of POWER
be pleased to state:

- (a) the electrical infrastructure on the basis of which the Government deems a village electrified;
- (b) the process deployed in ascertaining whether a village is electrified;
- (c) whether the assessing experts deem the mere presence of electrical infrastructure as a criteria per electrification of a village, and if so, the details thereof; and
- (d) the percentage of households that have access to electricity in the electrified villages, State/UT-wise?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) to (c) : According to Rural Electrification Policy 2006, a village is reported as electrified, if

(i) basic infrastructure such as Distribution Transformer and Distribution Lines are provided in the inhabited locality as well as the locality inhabited by weaker sections of the society/hamlet where it exists,

(ii) electricity is provided to public places like Schools, Panchayat Office, Health Centres, Dispensaries, Community Centres etc., and

(iii) the number of households electrified should be at least 10% of the total number of households in the village.

A village is reported to be electrified by the States, if it fulfills the above mentioned norms. However, the level of infrastructure may vary in different habitations of the same village.

The data regarding rural electrification including electrification of villages is reported by the concerned State Governments and State Distribution Companies (DISCOMs). Rural Electrification Corporation (REC), being the Nodal Agency for operationalization of Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), has deployed Gram Vidyut Abhiyantas (GVAs), who visit villages and report the situation of the day of visit. If any discrepancy is found, States/DISCOMs are advised by REC to rectify the status.

(d) : As per census 2011, there were 16,78,26,730 rural households in the country. Out of which 9,28,08,038 households were having electricity and remaining 7,50,18,692 households were un-electrified. State-wise details of rural and urban area households are given at Annexure. Since 2012-13, free electricity connections to 53,26,016 Below Poverty Line (BPL) households have been released as on 30.06.2016.

ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 4312 ANSWERED IN THE LOK SABHA ON 11.08.2016.

State/UT wise No. of Household using electricity as main source for lighting in the Country as per Census 2011							
Sl. No.	States/UTs	Rural Households			Urban Households		
		Total No. of HHs	No. of Households using electricity	% of Households using Electricity	Total No. of HHs	No. of Households using electricity	% of Households using Electricity
	States						
1	Andhra Pradesh	14,246,309	12,782,453	89.72%	6,778,225	6,594,769	97.29%
2	Arunachal Pradesh	195,723	108,550	55.46%	65,891	63,271	96.02%
3	Assam	5,374,553	1,524,221	28.36%	992,742	834,679	84.08%
4	Bihar	16,926,958	1,754,673	10.37%	2,013,671	1,343,762	66.73%
5	Chhattisgarh	4,384,112	3,070,879	70.05%	1,238,738	1,161,062	93.73%
6	Goa	124,674	119,208	95.62%	198,139	193,553	97.69%
7	Gujarat	6,765,403	5,749,271	84.98%	5,416,315	5,263,943	97.19%
8	Haryana	2,966,053	2,585,338	87.16%	1,751,901	1,684,959	96.18%
9	Himachal Pradesh	1,310,538	1,265,897	96.59%	166,043	162,886	98.10%
10	Jammu & Kashmir	1,497,920	1,208,527	80.68%	517,168	507,030	98.04%
11	Jharkhand	4,685,965	1,514,050	32.31%	1,495,642	1,315,817	87.98%
12	Karnataka	7,864,196	6,819,812	86.72%	5,315,715	5,125,655	96.42%
13	Kerala	4,095,674	3,772,137	92.10%	3,620,696	3,512,569	97.01%
14	Madhya Pradesh	11,122,365	6,479,144	58.25%	3,845,232	3,565,500	92.73%
15	Maharashtra	13,016,652	9,605,299	73.79%	10,813,928	10,398,865	96.16%
16	Manipur	335,752	205,444	61.19%	171,400	141,191	82.38%
17	Meghalaya	422,197	217,739	51.57%	116,102	110,219	94.93%
18	Mizoram	104,874	72,138	68.79%	116,203	114,017	98.12%
19	Nagaland	284,911	214,319	75.22%	115,054	112,086	97.42%
20	Odisha	8,144,012	2,895,252	35.55%	1,517,073	1,260,634	83.10%
21	Punjab	3,315,632	3,166,394	95.50%	2,094,067	2,059,399	98.34%
22	Rajasthan	9,490,363	5,528,360	58.25%	3,090,940	2,901,680	93.88%
23	Sikkim	92,370	83,277	90.16%	35,761	35,301	98.71%
24	Tamil Nadu	9,563,899	8,683,426	90.79%	8,929,104	8,581,633	96.11%
25	Tripura	607,779	361,573	59.49%	235,002	215,214	91.58%
26	Uttar Pradesh	25,475,071	6,054,978	23.77%	7,449,195	6,065,253	81.42%
27	Uttarakhand	1,404,845	1,166,756	83.05%	592,223	571,419	96.49%
28	West Bengal	13,717,186	5,529,496	40.31%	6,350,113	5,405,627	85.13%
	Total (States)	167,535,986	92,538,611	55.24%	75,042,283	69,301,993	92.35%
	UTs						
1	Chandigarh	6,785	6,603	97.32%	228,276	224,601	98.39%
2	NCT of Delhi	79,115	77,366	97.79%	3,261,423	3,233,443	99.14%
3	Daman & Diu	12,750	12,532	98.29%	47,631	47,292	99.29%
4	Dadra & Nagar Haveli	35,408	32,452	91.65%	37,655	37,106	98.54%
5	Lakshadweep	2,523	2,517	99.76%	8,180	8,152	99.66%
6	Puducherry	95,133	91,105	95.77%	206,143	203,100	98.52%
7	Andaman & Nicobar Islands	59,030	46,852	79.37%	34,346	33,569	97.74%
	Total (UTs)	290,744	269,427	92.67%	3,823,654	3,787,263	99.05%
	Grand Total (States + UTs)	167,826,730	92,808,038	55.30%	78,865,937	73,089,256	92.68%

GOVERNMENT OF INDIA
MINISTRY OF POWER
LOK SABHA
UNSTARRED QUESTION NO.4324
ANSWERED ON 11.08.2016

HYDRO POWER PLANTS

†4324. SHRI SUMEDHANAND SARSWATI:
SHRI RAJU SHETTY:

Will the Minister of POWER
be pleased to state:

- (a) the number of hydro-electric projects set up in various States of the country during the last two years;
- (b) whether a number of proposals received from different States for setting up of hydro-electric projects are pending with the Government, if so, the State-wise details thereof and the action taken by the Government thereon, State-wise and proposal-wise;
- (c) whether the Government proposes to set up a new power plant in Kota district of Rajasthan; and
- (d) if so, the action taken by the Government in this regard so far?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : 9 Hydro Electric Projects, with a total capacity of 2357 MW, were commissioned during the last two years, and the current year (till 31.07.2016) in various states of the country. Out of these 9 projects (2357 MW), three projects were partially commissioned during this period and the details thereof are given at Annex-I.

(b) : Detailed Project Reports (DPRs) of 15 Hydro Electric schemes with a total Installed Capacity of 8,457 MW have been received by various appraising Groups in CEA/CWC/GSI/CSMRS as on 30.6.2016 for examination. The details of these projects and action taken so far, in this regard, are given at Annex-II.

The Central Electricity Authority (CEA) is reviewing these projects regularly with various appraising agencies and project developers for expeditious appraisal of DPRs.

(c) & (d) : As regards Thermal Power Projects, after enactment of the Electricity Act, 2003, Techno Economic Clearance (TEC) for setting up of Thermal Power Project is not required. As such, Government has not received any proposal for setting up new power plant either Hydroelectric (above 25 MW) or Thermal, in Kota District of Rajasthan.

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4324 ANSWERED IN THE LOK SABHA ON 11.08.2016.

HYDRO CAPACITY ADDITION DURING THE LAST TWO YEARS

Sl. No.	Name of Project/Executing Agency/State/Capacity (MW)	Unit Nos.	Capacity (MW)	Commissioning Date
Commissioned During 2014-15				
1.	Parbati-III # NHPC, HP 4x130=520 MW	Unit- 4	130	22.05.2016
2.	Rampur # SJVN Limited, HP. 6x68.67 = 412 MW	Unit- 3 Unit- 4 Unit- 6	68.67 68.67 68.67	31.07.2014 12.06.2014 04.12.2014
3a.	Koldam NTPC, HP. 4x200 = 800 MW	Unit- 1 Unit- 2	200 200	31.03.2015 30.03.2015
Total (2014-15)			736	
Commissioned During 2015-16				
3b.	Koldam NTPC, HP. 4x200 = 800 MW	Unit- 3 Unit- 4	200 200	10.04.2015 12.06.2015
4a.	Teesta Low Dam-IV ## NHPC, W.B. 4x40 = 160 MW	Unit- 1 Unit- 2	40 40	14.02.2016 16.03.2016
5.	Baglihar - II JKPDC, J&K 3x150 = 450 MW	Unit- 1 Unit- 2 Unit- 3	150 150 150	05.09.2015 29.09.2015 26.10.2015
6.	Lower Jurala TSGENCO, Telangana 6x40 = 240 MW	Unit- 1 Unit- 2 Unit- 3 Unit- 4	40 40 40 40	14.10.2015 30.09.2015 04.01.2016 05.03.2016
7.	Srinagar AHPCL, Uttarakhand 4x82.5 = 330 MW	Unit- 1 Unit- 2 Unit- 3 Unit- 4	82.5 82.5 82.5 82.5	10.04.2015 08.06.2015 20.04.2015 03.06.2015
8.	Jorethang Loop DANS Pvt. Ltd., Sikkim 2x48 = 96 MW	Unit- 1 Unit- 2	48 48	22.09.2015 23.09.2015
Total (2015-16)			1516	
Commissioned During 2016-17				
4b.	Teesta Low Dam-IV ## NHPC, W.B. 4x40 = 160 MW	Unit- 3	40	03.07.2016
9.	Kashang-I HPPCL, H.P. 1x65 = 65 MW	Unit-1	65	26.06.2016
Total (2016-17)			105	
Total (2014-till date)			2357 MW	

The other units of these projects were commissioned during the year 2013-14.

4th unit of TLD IV is likely to be commissioned during Aug, 2016.

ANNEX REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 4324 ANSWERED IN THE LOK SABHA ON 11.08.2016.

Status of Hydro-Electric Schemes in India under Examination in CEA

As on 30.06.2016

Sl. No	Scheme/ State/ Agency	Installed Capacity (MW)	Status
1	Kwar J&K/ CVPP	540	DPR is under examination in respect to Civil design and Cost aspects in CEA/CWC. Compliance is awaited from the Developer. Other aspects are examined and appraised.
2	Sawalkot J&K/JKPDC	1856	DPR has been examined and appraised in respect to Design aspects and Cost aspects are under examination in CEA/CWC.
3	Seli, H.P./SHPCL	400	DPR has been examined and appraised in respect to all aspects except Geological aspect. Concurrence meeting held on 29.09.15. Developer has to complete Geological Investigations and submit report to GSI for vetting. The Developer has informed that Geological Investigations report will be submitted by March, 2017.
4	Sach Khas H.P/ L&T HHPL	267	DPR has been examined and appraised in respect to all aspects and concurrence meeting shall be held in August, 2016.
5	Jelam Tamak/ Uttarakhand/ THDCIL	108	DPR has been cleared from all aspects except cost of Civil works. The DPR cannot be concurred for want of report on e-flow of Empowered Committee of MoWR, RD & GR in view of DO letter of Hon'ble Minister (MoWR, RD, GR) dated 8.11.2015.
6	Bowala Nand Prayag Uttarakhand/ UJVNL	300	DPR has been examined and appraised in respect to all aspects. The DPR cannot be concurred for want of report on e-flow of Empowered Committee of MoWR, RD & GR in view of DO letter of Hon'ble Minister (MoWR, RD, GR) dated 08.11.2015.
7	Dagmara Bihar/ BSHPCL	130	<i>DPR has been examined and appraised in respect to all aspects and concurrence meeting held on 20.03.2013. Concurrence was not accepted by the Authority due to high Project cost & tariff. The Developer vide letter dated 5.7.16 has submitted apportionment of cost reducing cost by Rs. 296.1 crs. The same was examined in CWC and CWC issued comments on 18.7.16. Compliance is awaited from Developer.</i>

8	Umngot Meghalaya /MCPG CL	210	<i>DPR has been examined and appraised in respect to hydrology and Power Potential aspects. Other aspects are under examination in CEA/GSI/CSMRS. Developer is not showing much interest in furnishing clarifications.</i>
9	Subansiri Middle (Kamla) Arunachal Pradesh/ KHEPCL	1800	DPR has been examined and appraised in respect to hydrology, Power Potential etc aspects. Design aspects are under examination in CWC/GSI/CSMRS/CEA.
10	Tagurshit Arunachal Pradesh/ L&T	74	DPR has been examined and appraised in respect to all aspects and concurrence meeting shall be held in August, 2016.
11	Attunli HEP Ar. Pr. /AHEPCL	680	DPR has been examined and appraised in respect to Design aspects except Geotechnical aspect. Geotechnical aspect and Cost aspects are under examination in CSMRS/CWC/CEA.
12	Turga PSS W.B./ WPSEDCL	1000	DPR has been examined and appraised in respect to all aspects and concurrence meeting held on 04.08.2016.
13	Loktak D/S Manipur /NHPC	66	DPR has been examined and appraised in respect to Design and Cost aspects. Geotechnical aspect is under examination in CSMRS. The Developer has to submit commitment regarding Rock Fracture tests.
14	Mago Chu Arunachal Pradesh/ SMCPCL	96	DPR has been reconsidered for examination/ concurrence in CEA on 17.03.2016 due to revision of cost (from 879.12 Crs. to 1042.08 Crs.) and is under examination in CWC/GSI/CSMRS/CEA.
15	Kirthai-II J&K/ JKPDC	930	DPR has been reconsidered for examination/ concurrence on 31.5.16 in CEA due to revision in power planning aspects on account of environmental flows revised by MoEF & CC.
	Total	8457	

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4327
ANSWERED ON 11.08.2016

AGREEMENT BETWEEN NTPC AND GOVERNMENT OF JHARKHAND

4327. DR. ARUN KUMAR:

Will the Minister of POWER
be pleased to state:

- (a) whether an agreement has been signed between NTPC and Government of Jharkhand for construction of an 8000 MW thermal power station at Patratu (Jharkhand), if so, the details thereof; and
- (b) if so, the salient features of the agreement including the cost sharing, funding, share of power to different States, allocation of captive coal mine, allocation of land covering the plant and coal mine area and commissioning schedule?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : NTPC Ltd., Government of Jharkhand, Jharkhand Bijli Vitran Nigam Limited (JBVNL), Jharkhand Urja Vikas Nigam Limited (JUVNL) and Jharkhand Urja Utpadan Nigam Limited (JUUNL) signed a Joint Venture Agreement on 29.07.2015 to form a Joint Venture Company between NTPC Limited and JBVNL with 74:26 equity participation respectively to takeover and operate the existing capacity of Patratu Thermal Power Station (PTPS) and its capacity expansion by 4000 MW in two phases (Phase-I : 3x800 MW; Phase-II : 2x800 MW).

(b) : Patratu Vidyut Utpadan Nigam Ltd. (PVUNL) has been incorporated on 15.10.2015 and has taken over PTPS. The capacity expansion of Patratu is proposed to be funded with debt: equity ratio of 75:25. The debt will be raised from the Bank/Financial Institutions and the required equity will be infused by the promoters.

Ministry of Power has allocated 100% power from the existing units of Patratu TPS and 85% power from the proposed expansion to the State of Jharkhand.

Ministry of Coal (MoC) has accorded in-principle approval for transfer of Banhardi coal block, allocated to JUUNL for Patratu TPS to PVUNL. The requisite land for the proposed expansion of Patratu TPS has been allocated by Government of Jharkhand to PVUNL.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4333
ANSWERED ON 11.08.2016

PROMOTION OF HYDRO ELECTRICITY

†4333. SHRI RATTAN LAL KATARIA:

Will the Minister of POWER
be pleased to state:

- (a) whether the Government has formulated any tariff policy to promote Hydro Electricity;
- (b) if so, the details thereof;
- (c) whether the Government has decided to provide long term loan to power projects, and if so, the details thereof;
- (d) whether Government has formulated any scheme to revive 1200 MW Teesta Hydro Electric Project through the economical restructuring of the same; and
- (e) if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : Ministry of Power, Government of India has notified the revised Tariff Policy on 28th January, 2016, with the objectives, *inter-alia*, to promote hydroelectric power generation. In view of geological uncertainties and clearance issues faced by Hydro projects, Hydro projects have been exempted from competitive bidding till 15th August 2022. A provision has been made for extension of PPA for hydro projects beyond 35 years for a further period of 15 years. Further, hydro power has been excluded for estimating Renewable Purchase Obligations. A provision has also been made that the developer shall have the option of indicating, while seeking approval of tariff, long rate of depreciation subject to the upper ceiling determined by Appropriate Commission.

(c) : Two Public Sector Undertakings under Ministry of Power i.e. Power Finance Corporation Ltd. and Rural Electrification Corporation Limited are already providing long term loans. Also, the Subordinate debt has been provided by the Government of India in a few cases with a low rate of interest for period up to 30 years alongwith a moratorium period.

(d) & (e) : Due to fund constraints, the works of Teesta-III HEP (1200 MW) was held up from September, 2014 to October, 2015. However, due to interventions by Ministry of Power, Government of Sikkim has increased its shareholding in Teesta Urja Ltd. (TUL) to 51%. The work on the project has re-started from October, 2015 and the project is now scheduled to be commissioned during the year 2016-17.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.4342
ANSWERED ON 11.08.2016

POWER GENERATION CAPACITY

†4342. SHRI ASHWINI KUMAR :

Will the Minister of POWER
be pleased to state:

- (a) the installed capacity, targets fixed and the power generated by the power plants of the Central, State and private sectors in the country separately, during the last three years and the current year, Sector-wise, resource-wise and State-wise;
- (b) whether there is any decline in the electricity generated by using coal and gas during the last two years and if so, the details thereof and the reasons therefor; and
- (c) the extent of increase took place in the electricity generation capacity in various sectors in the country during the last year and the action plan formulated by the Government for increasing the electricity generation capacity in future so as to meet the rising demand of electricity in the country?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : The installed Generation capacity, targets fixed and the power generated by the power plants of the Central, State and Private sectors in the country, during the last three years and the current year, Sector-wise, resources-wise and State-wise is given at Annex.

(b) : No, Madam.

(c) : The electricity generation capacity in various sectors in the country during 2015-16 vis-à-vis 2014-15 is given below:

Sector	Generation Capacity as on 31.03.2016	Generation Capacity as on 31.03.2015	% increase
CENTRAL	79181.05	75405.45	5.01
STATE	97006.07	90055.19	7.72
PVT	83228.5	70235.5	18.50
Grand Total	259415.62	235696.14	10.06

Generation capacity addition has been planned to meet the rising demand of electricity in the country. Generation capacity addition target during 12th Five Year Plan (2012-17) is 88,537 MW from conventional sources on All-India basis. In addition, the capacity addition planned from renewable sources is 30,000 MW during 12th Five Year Plan. With this capacity addition, the projected demand for electricity as per 18th (Electric Power Survey) EPS is likely to be met by the terminal year of 12th Five Year Plan.

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 4342 ANSWERED IN THE LOK SABHA ON 11.08.2016.

Sector wise, Fuel wise and State wise Monitored Capacity, Target fixed and Generation for current year and last three years												
Sector / Resource / State	2016-17 (up to July 16)			2015-16			2014-15			2013-14		
	Monitored Capacity as on 31.07.2016 MW	Target MU	Generation * MU	Installed Capacity as on 31.03.2016 MW	Target MU	Generation MU	Monitored Capacity as on 31.03.2015 MW	Target MU	Generation MU	Monitored Capacity as on 31.03.2014 MW	Target MU	Generation MU
CENTRAL												
HYDRO												
ARUNACHAL PRADESH	405	605	648.23	405	1125	1280.25	405	1200	1109.48	405	1250	980.94
ASSAM	225	241	381.6	225	764	781.8	225	764	629.46	225	680	793.81
BBMB	2866.3	3541	4090.97	2884.3	9076	11818.9	2884.3	9275	10599.78	2884.3	9665	12125.01
DVC	143.2	59	14.41	143.2	219	176.51	143.2	218	267.3	143.2	283	225.63
HIMACHAL PRADESH	4483.02	8859	9198.7	4483.02	15027	18185.69	4083.02	13750	14684.06	3296.34	12620	12508.2
JAMMU AND KASHMIR	2009	4647	4867.68	2009	9690	11155.85	2009	9539	10640.92	2009	9490	8895.6
MADHYA PRADESH	1520	721	1206.87	1520	3315	2929.22	1520	3455	3670.82	1520	3384	5711.9
MANIPUR	105	140	254.22	105	500	536.64	105	520	372.44	105	500	639.84
MEGHALAYA	50	62	94.1	50	167	175.05	50	167	87.86	50	235	179.41
NAGALAND	75	65	83.9	75	227	163.14	75	227	165.15	75	227	245.71
SIKKIM	570	1229	1294.3	570	2813	3055.43	570	2721	2914.43	570	2841	2653.96
UTTARAKHAND	1774.2	1672	1873.25	1774.2	5502	5891.04	1774.2	5452	5423.92	1774.2	5514	6248.77
WEST BENGAL	252	424	418.01	212	500	533.63	132	540	394.19	132	642	186.95
NUCLEAR												
GUJARAT	440	1100	0	440	3116	2028.17	440	3116	3529.4	440	3282	3752.43
KARNATAKA	880	2053	1902.3	880	6366	7672.71	880	5607	6462.17	880	5778	6539.06
MAHARASHTRA	1400	3173	2981.28	1400	8397	10389.14	1400	7940	10269.89	1400	9081	9884.54
RAJASTHAN	1180	2688	2398.52	1180	7645	8419.24	1180	7645	7722.39	1180	7778	9233.13
TAMIL NADU	1440	3464	3948.92	1440	9642	5471.76	1440	8158	5227.15	440	6395	2115.13
UTTAR PRADESH	440	961	1109.85	440	2834	3432.6	440	2834	2890.54	440	2886	2703.5
COAL												
ANDHRA PRADESH	2000	5112	4943.83	2000	14600	14469.64	2000	14400	15025.53	2000	14191	14684.48
ASSAM	250	366	565.23	250	497	117.12						
BIHAR	4325	8204	8265.69	4325	20650	20827.01	4075	17215	18272.27	3220	15600	14939.36
CHHATTISGARH	6080	14554	16139.39	6080	42684	46265.11	6080	42153	45074.93	6080	43119	43449.75
DELHI	705	358	960.31	705	3900	2241.44	705	4600	3281.21	705	4600	4146.49
DVC	7900	10008	11319.54	7900	30673	27853.42	6800	33497	25283.81	6200	33300	27889.66
HARYANA	1500	2440	2388.18	1500	6500	5798.2	1500	5912	7022.93	1500	7500	5382.61
MADHYA PRADESH	4760	10341	11210.86	4760	29017	31319.93	4260	28545	29573.73	4260	26860	28795.84
MAHARASHTRA	1660	975	1363.79	1660	4022	1875.66	1000	3700	2310.91	1000	2622	820.79
ORISSA	3460	8497	9282.36	3460	25800	27697.28	3460	25800	27482.53	3460	25010	25590.5
TAMIL NADU	2500	5512	4528.21	2500	11924	11274.9	2000	6492	5919.44	1500	3893	3896.72
TELANGANA	2600	6567	6277.51	2600	19550	20250.59	2600	19700	20441.18	2600	19210	19746.25
UTTAR PRADESH	8310	19161	18590.18	8310	58850	57511.9	8310	58407	58845.8	8310	57355	59232.57
WEST BENGAL	2100	4366	4138.32	2100	13400	12360.43	2100	13700	13378.93	2100	13350	13277.74
LIGNITE												
RAJASTHAN	250	327	273.18	250	1550	1285.56	250	1643	1380.66	250	1423	1437.96
TAMIL NADU	2990	7005	6456.92	2990	18430	17864.31	2990	17618	18327.84	2740	17395	18550.92
NATURAL GAS												
ASSAM	291	561	592.38	291	1725	1758.83	291	1725	1741.04	291	1725	1726.39
GUJARAT	1313.59	1049	1271.93	1313.59	3450	2173.9	1313.59	3180	3349.75	1313.59	6295	2711.51
HARYANA	431.59	376	462.77	431.59	1200	1100.64	431.59	1600	1571.43	431.59	2010	1731.87
MAHARASHTRA	2220	1002	1504.79	2220	0	1233.67	2220	1300	0	2220	500	1506.29
RAJASTHAN	419.33	346	124.24	419.33	1200	941.97	419.33	1600	1653.45	419.33	1985	1965.34
TRIPURA	937.1	1701	1581.9	937.1	5556	4370.16	901.5	2202	3097.98	447.3	1395	1638.24
UTTAR PRADESH	1493.14	1298	1071.25	1493.14	4200	4511.31	1493.14	5000	4194.28	1493.14	7080	5191.85
NAPHTHA												
DVC	90	0	0	90	0	0	90	0	0	90	0	0
KERALA	359.58	182	15.4	359.58	500	142.75	359.58	300	819.12	359.58	630	968.53
Central (Total)	79203.05	146012	150095.27	79181.05	406803	409342.5	75405.45	393417	395110.1	70959.57	389579	384905.18
State												
HYDRO												
ANDHRA PRADESH	1100	294	64.72	1100	2005	671.33	1100	1886	1862.48	1100	1860	2026.57
ASSAM	100	141	139.93	100	390	408.88	100	390	402.43	100	390	422.14

MAHARASHTRA	481	513	391.08	481	1486	1181.04	481	1485	1506.9	481	1515	1687.72
SIKKIM	195	397	352.8	195	607	496.49	99	748	430.86	99	537	291.42
UTTARAKHAND	730	1443	1463.16	730	2890	2112.02	400	1776	1815.94	400	1817	437.9
COAL												
ANDHRA PRADESH	3260	5430	5247.61	3260	9130	13175.68	1560	4386	4761.77	750	3265	3674.63
CHHATTISGARH	10598	10842	12681.1	10598	26107	27644.38	8353	19449	18785.05	5048	13698	14563.21
GUJARAT	10242	21484	20434.9	10242	68244	66099.82	10220	64430	66493.72	10220	50835	61804.83
HARYANA	1320	1806	819.19	1320	7000	4952.22	1320	7000	6537.48	1320	8291	6207.51
JHARKHAND	1950	4179	4537.59	1950	11624	12651.67	1950	12310	11434.2	1950	10869	11250.5
KARNATAKA	2060	4376	4087.5	2060	13500	14842.67	2060	14942	13754.38	2060	13163	13945.38
MADHYA PRADESH	8225	14483	15230.99	8225	27527	40952.93	6425	11357	22264.77	3125	3481	5428.33
MAHARASHTRA	10996	18596	15080.27	10996	53600	54171.66	10996	38496	44017.41	9226	33953	34668.22
ORISSA	5000	6939	7313.48	5000	17540	21496.85	4650	11099	14131.49	3450	9064	10218.34
PUNJAB	3920	3968	5423.95	3920	13000	10999.5	2060	4732	7250.01	700	292	511.69
RAJASTHAN	1320	2693	3292.67	1320	9758	8684.82	1320	8000	7866.36	1320	0	3713.53
TAMIL NADU	2700	1709	2719.61	2100	2968	4720.54	900	1093	2520.86	300	0	616.77
UTTAR PRADESH	5490	6635	8100.58	4830	21401	17719.99	2850	18505	19624.94	2850	17250	17587.87
WEST BENGAL	1755	3795	3944.32	1915	9761	10621.69	1915	8978	8952.17	1315	9059	8929.72
LIGNITE												
GUJARAT	500	1151	1192.25	500	3548	3077.99	500	3600	3266.61	500	3417	3018.02
RAJASTHAN	1080	2504	2139.19	1080	7325	7215.82	1080	5000	7351.81	1080	5249	4194.32
TAMIL NADU	250	618	425.98	250	1700	1476.81	250	1861	1828.12	250	1866	1865.26
NATURAL GAS												
ANDHRA PRADESH	4880.4	907	1943.85	4880.4	2335	5535.51	3370.4	4421	2561.07	3370.4	3856	5244.06
DELHI	108	0	0	108	0	0	108	0	0	108	175	0.22
GUJARAT	4060	1153	2364.57	4060	3010	8435.39	4160	1400	3119.95	3760	1925	2948.82
MAHARASHTRA	180	284	435.42	180	1110	1179.74	180	1250	1148.5	180	1291	1274.78
TAMIL NADU	503.1	196	455.79	503.1	964	978.7	503.1	1850	2128.98	503.1	1750	2538.22
NAPHTHA												
GOA	48	0	0	48	0	0	48	254	12.61	48	254	241.32
KERALA	174	0	0	174	50	0	174	50	154.71	174	25	352.21
DIESEL												
ANDHRA PRADESH	36.8	0	0	36.8	0	0	36.8	0	0	36.8	0	0
KARNATAKA	106.5	0	0	106.5	0	0	106.5	0	0	106.5	0	0
TAMIL NADU	411.7	14	10.98	411.7	300	76.23	411.7	1195	1045.97	411.7	1450	1451.39
Private (Total)	84328.5	11972.7	123885.45	83228.5	32407.2	348240.15	70235.5	25698.5	281752.1	56890.5	206151	226244.56
Import												
Hydro												
Bhutan (IMP)		1662	1984.16		4800	5244.21		4800	5007.74	0	4800	5597.9
		1662	1984.16		4800	5244.21		4800	5007.74	0	4800	5597.9
Grand Total	260726.98	389271	391163.27	259415.62	137500	1107822.28	235696.14	1023000	1048672.96	213169.16	975000	967150.34

* PROVISIONAL BASED ON ACTUAL-CUM-ASSESSMENT

Note: Generation from conventional sources (Thermal, Hydro and Nuclear) stations of 25 MW and above only.
