

**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3029  
ANSWERED ON 03.08.2017**

**POWER PROJECTS IN ANDHRA PRADESH**

**3029. SHRI M. RAJA MOHAN REDDY:**

**Will the Minister of POWER  
be pleased to state the project-wise details of the power projects of Andhra Pradesh which are lying pending/sanctioned or on completion stage as on date?**

**A N S W E R**

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

**( SHRI PIYUSH GOYAL )**

**As per Section 7 of the Electricity Act 2003, any generating company may establish, operate and maintain a generating station without obtaining a license/permission under this Act, if it complies with the technical standards relating to connectivity with the grid. Accordingly, sanction of the Government is not required for setting up of thermal power projects. However, for setting up of Hydroelectric Projects, the Detailed Project Reports (DPRs) are required to be submitted for concurrence of the Central Electricity Authority (CEA).**

**No hydroelectric project of the state of Andhra Pradesh is pending for concurrence in CEA.**

**Five (05) thermal power projects and one (01) hydroelectric project are under construction in the State of Andhra Pradesh. The details are given at Annexure.**

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**ANNEXURE**

**ANNEXURE REFERRED TO IN REPLY TO UNSTARRED QUESTION NO. 3029  
ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**Details of Under Construction Power Projects in the State of Andhra Pradesh**

<b>Sl. No.</b>	<b>Name of the project</b>	<b>Unit No</b>	<b>Capacity (MW)</b>
<b>1</b>	<b>Dr.Narla Tata Rao TPS St-V</b>	<b>U-1</b>	<b>800</b>
<b>2</b>	<b>Sri Damodaram Sanjeevaiah TPP St-II</b>	<b>U-1</b>	<b>800</b>
<b>3</b>	<b>Rayalaseema TPP St-IV</b>	<b>U-6</b>	<b>600</b>
<b>4</b>	<b>Bhavanapadu TPP Ph-I</b>	<b>U-1</b>	<b>660</b>
		<b>U-2</b>	<b>660</b>
<b>5</b>	<b>Thamminapatnam TPP stage -II</b>	<b>U-3</b>	<b>350</b>
		<b>U-4</b>	<b>350</b>
<b>6</b>	<b>Polavaram (12x80) (Hydro)</b>	<b>U1-U12</b>	<b>960</b>

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3035  
ANSWERED ON 03.08.2017**

**POWER GENERATION CAPACITY**

**†3035. SHRI RAHUL KASWAN:**

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

- (a) the details regarding the requirement of power and power generating capacity of various States in the country including Rajasthan;**
- (b) whether it is a fact that as compared to the demand the power generating capacity of electricity is very less in Rajasthan; and**
- (c) if so, the action being taken by the Government to increase power production in the State?**

**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 state-wise energy requirement and energy supplied during 2016-17 and the current year 2017-18 (upto June, 2017) is given at Annexure-I and the details of installed capacity of power utilities in various States/UTs including allocated shares in joint and central sector utilities is given at Annexure-II.**

**(b) & (c): The installed capacity of generating stations in the state of Rajasthan including allocated shares in Joint and Central Sector utilities is more than the demand of electricity.**

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**ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3035 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**Power Supply Position –Energy**

**In Million Units (MUs)**

State / System / Region	April, 2017 - June,*2017				April, 2016 - March,2017			
	Energy Requirement	Energy Supplied	Energy not Supplied		Energy Requirement	Energy Supplied	Energy not Supplied	
	( MU )	( MU )	( MU )	( % )	( MU )	( MU )	( MU )	( % )
Chandigarh	487	478	9	1.8	1,645	1,645	0	0.0
Delhi	9,345	9,338	7	0.1	30,829	30,797	32	0.1
Haryana	12,875	12,875	0	0.0	48,895	48,895	0	0.0
Himachal Pradesh	2,326	2,317	9	0.4	8,831	8,779	52	0.6
Jammu & Kashmir	4,597	3,669	928	20.2	17,398	14,194	3,204	18.4
Punjab	14,015	14,015	0	0.0	53,098	53,098	0	0.0
Rajasthan	16,829	16,723	106	0.6	67,838	67,415	423	0.6
Uttar Pradesh	31,942	31,575	367	1.1	1,07,569	1,05,701	1,868	1.7
Uttarakhand	3,500	3,493	7	0.2	13,069	12,986	83	0.6
Northern Region	95,915	94,481	1,434	1.5	3,49,172	3,43,513	5,659	1.6
Chhattisgarh	6,829	6,829	0	0.0	23,750	23,697	53	0.2
Gujarat	29,192	29,192	0	0.0	1,03,706	1,03,705	1	0.0
Madhya Pradesh	16,166	16,166	0	0.0	65,759	65,758	1	0.0
Maharashtra	40,054	40,003	51	0.1	1,39,295	1,39,228	67	0.0
Daman & Diu	630	630	0	0.0	2,398	2,398	0	0.0
Dadra Nagar Haveli	1,525	1,525	0	0.0	6,021	6,021	0	0.0
Goa	1,036	1,036	0	0.0	4,319	4,317	2	0.0
Western Region	95,433	95,382	51	0.1	3,45,247	3,45,127	120	0.0
Andhra Pradesh	14,384	14,377	7	0.0	54,300	54,257	43	0.1
Telangana	13,291	13,286	5	0.0	53,030	53,018	12	0.0
Karnataka	16,640	16,634	6	0.0	66,899	66,537	362	0.5
Kerala	6,394	6,388	6	0.1	24,296	24,261	35	0.1
Tamil Nadu	27,986	27,977	9	0.0	1,04,511	1,04,487	24	0.0
Puducherry	703	703	0	0.0	2,548	2,545	3	0.1
Lakshadweep#	12	12	0	0.0	48	48	0	0.0
Southern Region	79,399	79,365	34	0.0	3,05,588	3,05,106	482	0.2
Bihar	6,797	6,606	191	2.8	25,711	25,130	581	2.3
DVC	5,230	5,221	9	0.2	18,929	18,791	138	0.7
Jharkhand	1,969	1,962	7	0.4	7,960	7,906	54	0.7
Odisha	7,285	7,283	2	0.0	26,758	26,756	2	0.0
West Bengal	13,627	13,571	56	0.4	47,948	47,807	141	0.3
Sikkim	106	106	0	0.0	475	475	0	0.0
Andaman- Nicobar#	60	45	15	25.0	240	180	60	25.0
Eastern Region	35,015	34,751	264	0.8	1,27,783	1,26,867	916	0.7
Arunachal Pradesh	183	180	3	1.6	729	714	15	2.1
Assam	2,227	2,111	116	5.2	9,020	8,694	326	3.6
Manipur	184	181	3	1.6	764	740	24	3.1
Meghalaya	407	407	0	0.0	1,715	1,715	0	0.0
Mizoram	124	122	2	1.6	514	501	13	2.5
Nagaland	187	184	3	1.6	757	745	12	1.6
Tripura	605	592	13	2.1	1,644	1,621	23	1.4
North-Eastern Region	3,918	3,777	141	3.6	15,140	14,720	420	2.8
All India	3,09,680	3,07,755	1,925	0.6	11,42,928	11,35,332	7,596	0.7

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

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**ANNEXURE-II**

**ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3035  
ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**INSTALLED CAPACITY (IN MW) OF POWER UTILITIES IN THE STATES/UTS LOCATED IN NORTHERN  
REGION INCLUDING ALLOCATED SHARES IN JOINT & CENTRAL SECTOR UTILITIES**

**(As on 30.06.2017)**

State	Ownership/ Sector	Modewise breakup							Grand Total
		Thermal				Nuclear	Hydro (Renewable)	RES (MNRE)	
		Coal	Gas	Diesel	Total				
Delhi	State	135.00	1800.40	0.00	1935.40	0.00	0.00	0.00	1935.40
	Private	869.22	108.00	0.00	977.22	0.00	0.00	56.27	1033.49
	Central	3821.18	207.01	0.00	4028.19	102.83	723.09	0.00	4854.11
	Sub-Total	4825.40	2115.41	0.00	6940.81	102.83	723.09	56.27	7823.00
Haryana	State	2720.00	150.00	0.00	2870.00	0.00	1084.51	59.30	4013.81
	Private	4080.78	0.00	0.00	4080.78	0.00	200.00	192.00	4472.78
	Central	1269.32	535.61	0.00	1804.94	100.94	663.70181	0.00	2569.58
	Sub-Total	8070.10	685.61	0.00	8755.72	100.94	1948.21	251.30	11056.16
Himachal Pradesh	State	0.00	0.00	0.00	0.00	0.00	594.60	256.61	851.21
	Private	0.00	0.00	0.00	0.00	0.00	980.00	579.43	1559.43
	Central	170.74	62.01	0.00	232.75	28.95	1223.88	0.00	1485.58
	Sub-Total	170.74	62.01	0.00	232.75	28.95	2798.48	836.04	3896.22
Jammu & Kashmir	State	0.00	175.00	0.00	175.00	0.00	1230.00	108.03	1513.03
	Private	0.00	0.00	0.00	0.00	0.00	0.00	51.36	51.36
	Central	463.15	129.07	0.00	592.23	67.98	1048.98	0.00	1709.19
	Sub-Total	463.15	304.07	0.00	767.23	67.98	2278.98	159.39	3273.58
Punjab	State	2630.00	150.00	0.00	2780.00	0.00	2570.23	127.80	5478.03
	Private	5115.50	0.00	0.00	5115.50	0.00	288.00	1040.80	6444.30
	Central	871.08	264.01	0.00	1135.09	196.81	923.42	0.00	2255.32
	Sub-Total	8616.58	414.01	0.00	9030.59	196.81	3781.65	1168.60	14177.65
Rajasthan	State	5850.00	603.80	0.00	6453.80	0.00	1087.96	23.85	7565.61
	Private	3882.00	0.00	0.00	3882.00	0.00	104.00	6362.24	10348.24
	Central	1153.91	221.10	0.00	1375.01	556.74	739.01	0.00	2670.76
	Sub-Total	10885.91	824.90	0.00	11710.81	556.74	1930.97	6386.09	20584.61
Uttar Pradesh	State	5923.00	0.00	0.00	5923.00	0.00	724.10	25.10	6672.20
	Private	8714.33	0.00	0.00	8714.33	0.00	842.00	2297.00	11853.33
	Central	3315.25	549.49	0.00	3864.74	289.48	1664.93	0.00	5819.15
	Sub-Total	17952.58	549.49	0.00	18502.07	289.48	3231.03	2322.10	24344.68
Uttarakhand	State	0.00	0.00	0.00	0.00	0.00	1252.15	62.87	1315.02
	Private	99.00	450.00	0.00	549.00	0.00	88.00	452.94	1089.94
	Central	332.05	69.66	0.00	401.71	31.24	475.54	0.00	908.49
	Sub-Total	431.05	519.66	0.00	950.71	31.24	1815.69	515.81	3313.45
Chandigarh	State	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Private	0.00	0.00	0.00	0.00	0.00	0.00	17.32	17.32
	Central	34.86	15.03	0.00	49.88	8.01	101.71	0.00	159.60
	Sub-Total	34.86	15.03	0.00	49.88	8.01	101.71	17.32	176.92
Central - Unallocated		1198.83	291.05	0.00	1489.88	237.03	701.95	0.00	2428.87
Total (Northern Region)	State	17258.00	2879.20	0.00	20137.20	0.00	8543.55	663.56	29344.31
	Private	22760.83	558.00	0.00	23318.83	0.00	2502.00	11049.36	36870.19
	Central	12630.37	2344.06	0.00	14974.43	1620.00	8266.22	0.00	24860.65
	Grand Total	52649.20	5781.26	0.00	58430.46	1620.00	19311.77	11712.92	91075.15

**INSTALLED CAPACITY (IN MW) OF POWER UTILITIES IN THE STATES/UTS LOCATED IN WESTERN REGION INCLUDING ALLOCATED SHARES IN JOINT & CENTRAL SECTOR UTILITIES**

**(As on 30.06.2017)**

State	Ownership / Sector	Modewise breakup							Grand Total
		Thermal				Nuclear	Hydro (Renewable)	RES (MNRE)	
		Coal	Gas	Diesel	Total				
Goa	State	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05
	Private	0.00	48.00	0.00	48.00	0.00	0.00	0.71	48.71
	Central	451.12	22.20	0.00	473.32	26.00	0.00	0.00	499.32
	Sub-Total	451.12	70.20	0.00	521.32	26.00	0.00	0.76	548.08
Daman & Diu	State	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Private	0.00	0.00	0.00	0.00	0.00	0.00	10.46	10.46
	Central	122.96	48.40	0.00	171.36	7.00	0.00	0.00	178.36
	Sub-Total	122.96	48.40	0.00	171.36	7.00	0.00	10.46	188.82
Gujarat	State *	5230.00	2177.82	0.00	7407.82	0.00	772.00	8.00	8187.82
	Private	7765.67	3960.00	0.00	11725.67	0.00	0.00	6770.37	18496.04
	Central	3012.09	424.00	0.00	3436.09	559.00	0.00	0.00	3995.09
	Sub-Total	16007.76	6561.82	0.00	22569.58	559.00	772.00	6778.37	30678.95
Madhya Pradesh	State	4080.00	0.00	0.00	4080.00	0.00	1703.66	83.96	5867.62
	Private	5574.00	100.00	0.00	5674.00	0.00	0.00	3453.93	9127.93
	Central	2720.70	257.00	0.00	2977.70	273.00	1520.00	0.00	4770.70
	Sub-Total	12374.70	357.00	0.00	12731.70	273.00	3223.66	3537.89	19766.25
Chhattisgarh	State	3280.00	0.00	0.00	3280.00	0.00	120.00	11.05	3411.05
	Private	7230.00	0.00	0.00	7230.00	0.00	0.00	421.81	7651.81
	Central	1628.44	0.00	0.00	1628.44	48.00	0.00	0.00	1676.44
	Sub-Total	12138.44	0.00	0.00	12138.44	48.00	120.00	432.86	12739.30
Maharashtra	State	10380.00	672.00	0.00	11052.00	0.00	2884.84	208.12	14144.96
	Private	12306.00	568.00	0.00	12874.00	0.00	447.00	7440.67	20761.67
	Central	4219.43	2513.00	0.00	6732.43	690.00	0.00	0.00	7422.43
	Sub-Total	26905.43	3753.00	0.00	30658.43	690.00	3331.84	7648.79	42329.06
Dadra & Nagar Naveli	State	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Private	0.00	0.00	0.00	0.00	0.00	0.00	2.97	2.97
	Central	169.21	71.40	0.00	240.61	9.00	0.00	0.00	249.61
	Sub-Total	169.21	71.40	0.00	240.61	9.00	0.00	2.97	252.58
<b>Central - Unallocated</b>		<b>1994.00</b>	<b>197.59</b>	<b>0.00</b>	<b>2191.59</b>	<b>228.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2419.59</b>
<b>Total (Western Region)</b>	State	22970.00	2849.82	0.00	25819.82	0.00	5480.50	311.18	31611.50
	Private	32875.67	4676.00	0.00	37551.67	0.00	447.00	18100.92	56099.59
	Central	14317.95	3533.59	0.00	17851.54	1840.00	1520.00	0.00	21211.54
	<b>Grand Total</b>	<b>70163.62</b>	<b>11059.41</b>	<b>0.00</b>	<b>81223.03</b>	<b>1840.00</b>	<b>7447.50</b>	<b>18412.10</b>	<b>108922.63</b>

**INSTALLED CAPACITY (IN MW) OF POWER UTILITIES IN THE STATES/UTS LOCATED IN SOUTHERN REGION INCLUDING ALLOCATED SHARES IN JOINT & CENTRAL SECTOR UTILITIES**

(As on 30.06.2017)

State	Ownership/ Sector	Modewise breakup							Grand Total
		Thermal				Nuclear	Hydro (Renewable)	RES (MNRE)	
		Coal	Gas	Diesel	Total				
Andhra Pradesh	State	4410.00	235.40	0.00	4645.40	0.00	1673.60	89.50	6408.50
	Private	3873.88	3694.12	36.80	7604.80	0.00	0.00	6321.19	13925.99
	Central	1607.60	0.00	0.00	1607.60	127.27	0.00	0.00	1734.87
	Sub-Total	9891.48	3929.52	36.80	13857.80	127.27	1673.60	6410.69	22069.36
Telangana	State	4082.50	0.00	0.00	4082.50	0.00	2380.93	0.00	6463.43
	Private	839.45	950.88	0.00	1790.33	0.00	0.00	1868.17	3658.50
	Central	1878.12	0.00	0.00	1878.12	148.73	0.00	0.00	2026.85
	Sub-Total	6800.07	950.88	0.00	7750.95	148.73	2380.93	1868.17	12148.78
Karnataka	State	5020.00	0.00	127.92	5147.92	0.00	3599.80	155.33	8903.05
	Private	1958.50	0.00	25.20	1983.70	0.00	0.00	7478.48	9462.18
	Central	2429.20	0.00	0.00	2429.20	698.00	0.00	0.00	3127.20
	Sub-Total	9407.70	0.00	153.12	9560.82	698.00	3599.80	7633.81	21492.43
Kerala	State	0.00	0.00	159.96	159.96	0.00	1881.50	145.02	2186.48
	Private	615.00	174.00	0.00	789.00	0.00	0.00	193.70	982.70
	Central	1108.18	359.58	0.00	1467.76	362.00	0.00	0.00	1829.76
	Sub-Total	1723.18	533.58	159.96	2416.72	362.00	1881.50	338.72	4998.94
Tamil Nadu	State	4320.00	524.08	0.00	4844.08	0.00	2203.20	122.70	7169.98
	Private	4837.67	503.10	411.70	5752.47	0.00	0.00	10516.74	16269.21
	Central	4389.52	0.00	0.00	4389.52	1448.00	0.00	0.00	5837.52
	Sub-Total	13547.19	1027.18	411.70	14986.07	1448.00	2203.20	10639.44	29276.71
NLC	State	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Central	100.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00
	Sub-Total	100.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00
Puducherry	State	0.00	32.50	0.00	32.50	0.00	0.00	0.00	32.50
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08
	Central	248.40	0.00	0.00	248.40	86.00	0.00	0.00	334.40
	Sub-Total	248.40	32.50	0.00	280.90	86.00	0.00	0.08	366.98
Central - Unallocated		1664.00	0.00	0.00	1664.00	450.00	0.00	0.00	2114.00
Total (Southern Region)	State	17832.50	791.98	287.88	18912.36	0.00	11739.03	512.55	31163.94
	Private	12124.50	5322.10	473.70	17920.30	0.00	0.00	26378.36	44298.66
	Central	13425.02	359.58	0.00	13784.60	3320.00	0.00	0.00	17104.60
	Grand Total	43382.02	6473.66	761.58	50617.26	3320.00	11739.03	26890.91	92567.20

**INSTALLED CAPACITY (IN MW) OF POWER UTILITIES IN THE STATES/UTS LOCATED IN EASTERN REGION INCLUDING ALLOCATED SHARES IN JOINT & CENTRAL SECTOR UTILITIES**

**(As on 30.06.2017)**

State	Ownership / Sector	Modewise breakup							Grand Total
		Thermal				Nuclear	Hydro (Renewable)	RES (MNRE)	
		Coal	Gas	Diesel	Total				
Bihar	State	210.00	0.00	0.00	210.00	0.00	0.00	70.70	280.70
	Private	281.00	0.00	0.00	281.00	0.00	0.00	224.52	505.52
	Central	2939.33	0.00	0.00	2939.33	0.00	110.00	0.00	3049.32
	Sub-Total	3430.33	0.00	0.00	3430.33	0.00	110.00	295.22	3835.54
Jharkhand	State	420.00	0.00	0.00	420.00	0.00	130.00	4.05	554.05
	Private	850.00	0.00	0.00	850.00	0.00	0.00	23.27	873.27
	Central	748.74	0.00	0.00	748.74	0.00	61.00	0.00	809.74
	Sub-Total	2018.74	0.00	0.00	2018.74	0.00	191.00	27.32	2237.06
West Bengal	State	5520.00	100.00	0.00	5620.00	0.00	986.00	91.95	6697.95
	Private	2331.38	0.00	0.00	2331.38	0.00	0.00	332.69	2664.07
	Central	760.77	0.00	0.00	760.77	0.00	410.00	0.00	1170.77
	Sub-Total	8612.15	100.00	0.00	8712.15	0.00	1396.00	424.64	10532.78
DVC	State	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Central	7535.04	0.00	0.00	7535.04	0.00	186.20	0.00	7721.24
	Sub-Total	7535.04	0.00	0.00	7535.04	0.00	186.20	0.00	7721.24
Odisha	State	420.00	0.00	0.00	420.00	0.00	2061.92	6.30	2488.22
	Private	2939.00	0.00	0.00	2939.00	0.00	0.00	188.15	3127.15
	Central	1633.90	0.00	0.00	1633.90	0.00	89.00	0.00	1722.90
	Sub-Total	4992.90	0.00	0.00	4992.90	0.00	2150.92	194.45	7338.27
Sikkim	State	0.00	0.00	0.00	0.00	0.00	360.00	52.11	412.11
	Private	0.00	0.00	0.00	0.00	0.00	291.00	0.00	291.00
	Central	87.03	0.00	0.00	87.03	0.00	64.00	0.00	151.03
	Sub-Total	87.03	0.00	0.00	87.03	0.00	715.00	52.11	854.14
<b>Central - Unallocated</b>		<b>1101.83</b>	<b>0.00</b>	<b>0.00</b>	<b>1101.83</b>	<b>0.00</b>	<b>85.01</b>	<b>0.00</b>	<b>1186.84</b>
<b>Total (Eastern Region)</b>	State	6570.00	100.00	0.00	6670.00	0.00	3537.92	225.11	10433.03
	Private	6401.38	0.00	0.00	6401.38	0.00	291.00	768.63	7461.00
	Central	14806.64	0.00	0.00	14806.64	0.00	1005.20	0.00	15811.84
	Grand Total	27778.02	100.00	0.00	27878.02	0.00	4834.12	993.74	33705.87



**INSTALLED CAPACITY (IN MW) OF POWER UTILITIES IN THE STATES/UTS LOCATED IN NORTH-EASTERN REGION INCLUDING ALLOCATED SHARES IN JOINT & CENTRAL SECTOR UTILITIES**

(As on 30.06.2017)

State	Ownership/ Sector	Modewise breakup							Grand Total
		Thermal				Nuclear	Hydro (Renewable)	RES (MNRE)	
		Coal	Gas	Diesel	Total				
Assam	State	60.00	323.45	0.00	383.45	0.00	100.00	30.01	513.46
	Private	0.00	24.50	0.00	24.50	0.00	0.00	15.88	40.38
	Central	279.02	435.56	0.00	714.58	0.00	331.23	0.00	1045.81
	Sub-Total	339.02	783.51	0.00	1122.53	0.00	431.23	45.89	1599.65
Arunachal Pradesh	State	0.00	0.00	0.00	0.00	0.00	0.00	104.61	104.61
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.27
	Central	24.70	46.82	0.00	71.52	0.00	97.45	0.00	168.97
	Sub-Total	24.70	46.82	0.00	71.52	0.00	97.45	104.87	273.84
Meghalaya	State	0.00	0.00	0.00	0.00	0.00	322.00	31.03	353.03
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
	Central	30.40	109.69	0.00	140.09	0.00	65.19	0.00	205.28
	Sub-Total	30.40	109.69	0.00	140.09	0.00	387.19	31.04	558.32
Tripura	State	0.00	169.50	0.00	169.50	0.00	0.00	16.01	185.51
	Private	0.00	0.00	0.00	0.00	0.00	0.00	5.09	5.09
	Central	37.40	436.95	0.00	474.35	0.00	62.38	0.00	536.73
	Sub-Total	37.40	606.45	0.00	643.85	0.00	62.38	21.10	727.33
Manipur	State	0.00	0.00	36.00	36.00	0.00	0.00	5.45	41.45
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03
	Central	31.40	71.57	0.00	102.97	0.00	88.93	0.00	191.90
	Sub-Total	31.40	71.57	36.00	138.97	0.00	88.93	5.48	233.38
Nagaland	State	0.00	0.00	0.00	0.00	0.00	0.00	30.67	30.67
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.50
	Central	21.40	48.93	0.00	70.33	0.00	53.37	0.00	123.70
	Sub-Total	21.40	48.93	0.00	70.33	0.00	53.37	31.17	154.87
Mizoram	State	0.00	0.00	0.00	0.00	0.00	0.00	41.47	41.47
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	Central	20.70	40.46	0.00	61.16	0.00	34.19	0.00	95.35
	Sub-Total	20.70	40.46	0.00	61.16	0.00	34.19	41.57	136.92
Central - Unallocated		75.00	63.62	0.00	138.62	0.00	127.26	0.00	265.88
Total (North-Eastern Region)	State	60.00	492.95	36.00	588.95	0.00	422.00	259.25	1270.20
	Private	0.00	24.50	0.00	24.50	0.00	0.00	21.88	46.38
	Central	520.02	1253.60	0.00	1773.62	0.00	860.00	0.00	2633.62
	Grand Total	580.02	1771.05	36.00	2387.07	0.00	1282.00	281.12	3950.19

**INSTALLED CAPACITY (IN MW) OF POWER UTILITIES IN THE STATES/UTS LOCATED IN ISLANDS INCLUDING ALLOCATED SHARES IN JOINT & CENTRAL SECTOR UTILITIES**

(As on 30.06.2017)

State	Ownership/ Sector	Modewise breakup							Grand Total
		Thermal				Nuclear	Hydro (Renewable)	RES (MNRE)	
		Coal	Gas	Diesel	Total				
Andaman & Nicobar	State	0.00	0.00	40.05	40.05	0.00	0.00	5.25	45.30
	Private	0.00	0.00	0.00	0.00	0.00	0.00	6.56	6.56
	Central	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub-Total	0.00	0.00	40.05	40.05	0.00	0.00	11.81	51.86
Lakshadweep	State	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.75
	Central	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub-Total	0.00	0.00	0.00	0.00	0.00	0.00	0.75	0.75
Total (Islands)	State	0.00	0.00	40.05	40.05	0.00	0.00	5.25	45.30
	Private	0.00	0.00	0.00	0.00	0.00	0.00	7.31	7.31
	Central	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Grand Total	0.00	0.00	40.05	40.05	0.00	0.00	12.56	52.61

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3040  
ANSWERED ON 03.08.2017**

**POWER SURVEY IN KERALA**

**3040. DR. SHASHI THAROOR:**

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

- (a) the expected power demand in the State of Kerala (Peak Load) for 2017-18;**
- (b) the measures taken by the Ministry to increase the power generation capacity of the State in the light of the cancellation of proposed projects such as the Kasargod Power Station;**
- (c) whether his Ministry proposes to assist the State to establish LNG power plants in the light of the completion of the LNG Terminal at Kochi, one of only four such Terminals in the country;**
- (d) if so, the details thereof; and**
- (e) 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) : The expected peak demand in the State of Kerala during 2017-18 is 4387 MW.**

**(b) : Electricity is a concurrent subject. Arrangement of electricity and the distribution thereof to consumers within a State is in the purview of the respective State Government/State Power Utility. States, in order to fulfil their future requirements of power, may call for bids for power procurement from project developers. Government of India only supplements the efforts of the State Governments by establishing power plants in Central Sector through Central Public Sector Undertakings (CPSUs) and allocating power from them to the States / UTs. Further, there is sufficient transmission capacity available for transfer of power to the State.**

**The share of Kerala in the upcoming Central Sector Projects is 105 MW and 43 MW in Kudgi (2400 MW) by NTPC and Bhavini, Kalpakkam (500 MW) respectively.**

**(c) to (e) : There is no such proposal under consideration of Ministry of Power. A new power plant in any location is based and planned on electricity demand in that region.**

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3078  
ANSWERED ON 03.08.2017**

**BID FOR POWER TRANSMISSION PROJECTS**

**3078. DR. C. GOPALAKRISHNAN:**

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

- (a) whether the China's State run Southern Power Grid plans to bid for power transmission projects in India, if so, the details thereof;**
- (b) whether Government is also attracting interest from foreign firms including Chinese companies;**
- (c) if so, the details thereof;**
- (d) the total number of Chinese companies interested to invest in India's power projects; and**
- (e) the action taken or proposed to be taken by the Government on awarding projects to Chinese companies?**

**A N S W E R**

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

**( SHRI PIYUSH GOYAL )**

**(a) & (d): Yes, Madam, the China's State run Southern Power Grid, in association with CLP India Pvt. Ltd., is participating in the bidding process for three transmission projects being implemented through Tariff Based Competitive Bidding (TBCB).**

**(b) & (c): As per the guidelines for "Tariff Based Competitive Bidding Guidelines for Transmission Service" and "Guidelines for Encouraging Competition in Development of Transmission Projects" issued by Government of India, Ministry of Power dated 13.04.2006 in pursuance of Section 63 of Electricity Act, the developer for establishment of Independent Transmission Project are selected through International Competitive Bidding (ICB), process.**

**In the Independent Transmission Projects for which bidding process was conducted earlier, foreign companies like Isolux Corsan Concesiones, Spain, Instalaciones Inabensa S.A., Spain, CLP India Pvt. Ltd., Cobra Instalaciones Y Servicios S.A. Spain, Babcock and Brown Investment Holding (Singapore) Pvt Ltd., Singapore, State Grid International development Limited, Balfour Beatty Infrastructure Investments Ltd. in consortium with Tata Projects Ltd. had participated. In one of the Independent Transmission Project i.e. Transmission system associated with DGEN TPS (1200 MW) of Torrent Power Ltd.), the successful bidder was Instalaciones Inabensa, S.A., Spain.**

**(e) : The three transmission projects, in which Chinese companies are participating, are under process.**

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3087  
ANSWERED ON 03.08.2017**

**GAS BASED POWER PROJECTS**

**3087. DR. K. KAMARAJ:**

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

- (a) the details of gas based power projects in the country along with their power generation capacity, project and State-wise;**
- (b) whether Government proposes to increase power generation capacity of these power projects;**
- (c) if so, the details thereof along with the funds earmarked for the purpose; and**
- (d) the other steps being taken/ proposed to be taken by the Government to exploit full capacity of gas based power projects?**

**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 details of gas based power projects in the country is given at Annexure.**

**(b) & (c): At present, there is no such proposal under consideration to increase power generation capacity of these power projects.**

**(d) : Ministry of Petroleum & Natural Gas (MoP&NG) has stated that domestic gas is being supplied to the power sector as per current production level and domestic natural gas supply to power sector can improve only in case production levels increase in future and as per prevailing guidelines of MoP&NG.**

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## ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO.3087 ANSWERED IN THE LOK SABHA ON 03.08.2017.

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Sl. No	Name of Power Station	Installed Capacity (MW)	Name of the State
<b>CENTRAL SECTOR</b>			
1	NTPC, FARIDABAD CAPP	431.59	HARYANA
2	NTPC, ANTA CAPP	419.33	RAJASTHAN
3	NTPC, AURAIYA CAPP	663.36	UTTAR PRADESH
4	NTPC, DADRI CAPP	829.78	UTTAR PRADESH
5	NTPC, GANDHAR(JHANORE) CAPP	657.39	GUJARAT
6	NTPC, KAWAS CAPP	656.2	GUJARAT
7	RATNAGIRI (RGPPL-DHABHOL)	1967	MAHARASHTRA
8	KATHALGURI (NEEPCO)	291	ASSAM
9	MONARCHAK(NEEPCO)	101	TRIPURA
10	AGARTALA GT+ST (NEEPCO)	135	TRIPURA
11	TRIPURA CAPP (ONGC)	726.6	TRIPURA
<b>STATE SECTOR</b>			
12	I.P.CAPP	270	DELHI
13	PRAGATI CCGT-III	1500	DELHI
14	PRAGATI CAPP	330.4	DELHI
15	DHOLPUR CAPP	330	RAJASTHAN
16	RAMGARH (RRVUNL, Jaisalmer)	273.8	RAJASTHAN
17	PIPAVAV CAPP	702	GUJARAT
18	DHUVRAN CAPP(GSECL)	594.72	GUJARAT
19	HAZIRA CAPP(GSEG)	156.1	GUJARAT
20	HAZIRA CAPP EXT	351	GUJARAT
21	UTRAN CAPP(GSECL)	518	GUJARAT
22	URAN CAPP (MAHAGENCO)	672	MAHARASHTRA
23	KARAIKAL CAPP (PPCL)	32.5	PUDUCHERRY
24	KOVIKALPAL (THIRUMAKOTTAI)	107	TAMIL NADU
25	KUTTALAM (TANGEDCO)	100	TAMIL NADU
26	VALUTHUR CAPP	186.2	TAMIL NADU
27	GODAVARI (JEGURUPADU)	216	ANDHRA PRADESH
28	LAKWA GT (ASEB, Maibella)	157.2	ASSAM
29	NAMRUP CAPP + ST (APGCL)	181.5	ASSAM
30	BARAMURA GT (TSECL)	58.5	TRIPURA
31	ROKHIA GT (TSECL)	111	TRIPURA
<b>PRIVATE/IPP SECTOR</b>			
32	RITHALA CAPP (NDPL)	108	DELHI
33	GAMA CAPP	225	UTTARAKHAND
34	KASHIPUR CAPP (Sravanthi)	225	UTTARAKHAND

35	TROMBAY CCPP (TPC)	180	MAHARASHTRA
36	MANGAON CCPP	388	MAHARASHTRA
37	BARODA CCPP (GIPCL)	160	GUJARAT
38	ESSAR CCPP	300	GUJARAT
39	PAGUTHAN CCPP (GPEC)	655	GUJARAT
40	SUGEN CCPP (TORRENT)	1147.5	GUJARAT
41	UNOSUGEN CCPP	382.5	GUJARAT
42	DGEN Mega CCPP	1200	GUJARAT
43	GAUTAMI CCPP	464	ANDHRA PRADESH
44	GMR - KAKINADA (Tanirvavi)	220	ANDHRA PRADESH
45	GMR-Rajamundry Energy Ltd.	768	ANDHRA PRADESH
46	GODAVARI (SPECTRUM)	208	ANDHRA PRADESH
47	JEGURUPADU CCPP (GVK) PHASE- II	239.4	ANDHRA PRADESH
48	KONASEEMA CCPP	445	ANDHRA PRADESH
49	KONDAPALLI EXTN CCPP .	366	ANDHRA PRADESH
50	KONDAPALLI ST-3 CCPP (LANCO)	742	ANDHRA PRADESH
51	KONDAPALLI CCPP (LANCO)	350	ANDHRA PRADESH
52	PEDDAPURAM (BSES)	220	ANDHRA PRADESH
53	VEMAGIRI CCPP	370	ANDHRA PRADESH
54	VIJESWARAN CCPP	272	ANDHRA PRADESH
55	PCIL POWER AND HOLDINGS Ltd	30	ANDHRA PRADESH
56	RVK ENERGY	28	ANDHRA PRADESH
57	SILK ROAD SUGAR	35	ANDHRA PRADESH
58	LVS POWER	55	ANDHRA PRADESH
59	KARUPPUR CCPP (LANCO TANJORE)	119.8	TAMIL NADU
60	P.NALLUR CCPP (PPN)	330.5	TAMIL NADU
61	VALANTARVY CCPP	52.8	TAMIL NADU
62	DLF ASSAM GT	24.5	ASSAM

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3097  
ANSWERED ON 03.08.2017**

**DEFINITION OF ELECTRIFICATION OF A VILLAGE**

**3097. SHRI M.I. SHANAVAS:**

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

**(a) whether the definition of electrification of a village as per the Government guidelines has led to a faulty and erroneous calculation of data of rural electrification completed in the country as it doesn't take into account the actual electricity connection or its supply to the households; and**

**(b) if so, the steps proposed to be taken by the Government to rectify the mistakes 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) & (b) : 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 household 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, level of infrastructure may vary in different habitations of the same village.**

**To supplement the efforts of the States, Government of India has taken up a joint initiative with all States/UTs for preparation of State specific documents for providing 24x7 power supply to all households/homes, industrial & commercial consumers and adequate supply of power to agricultural consumers as per State policy. All the State Governments and Union Territories have signed the "24X7 Power For All" agreement with the Union Government.**

**Government of India supplements the efforts of States through its schemes including Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), Ujwal DISCOM Assurance Yojana (UDAY) etc.**

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3102  
ANSWERED ON 03.08.2017**

**ENVIRONMENTAL CLEARANCE**

**3102. SHRI MULLAPPALLY RAMACHANDRAN:**

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

- (a) whether environmental clearance has been given to Athirappilly Hydroelectric Power Project in Kerala; and**
- (b) if so, the details thereof and its present status?**

**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): The Ministry of Environment, Forest & Climate Change granted environmental clearance to Athirappally Hydroelectric Power Project (163 MW) in Thrissur District of Kerala on 18.07.2007. The validity of the same has expired on 17.07.2017.**

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3103  
ANSWERED ON 03.08.2017**

**INSTALLATION OF TRANSFORMER**

**3103. SHRIMATI MEENAKASHI LEKHI:**

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

- (a) whether the Government is planning to install transformers upto 500KVA on double pole structure; and**
- (b) 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 per Central Electricity Authority (Technical Standards for Construction of Electrical Plants & Electric Lines) Amendment Regulations, 2015, the mounting of distribution transformer would be as per relevant Indian Standards and the relevant Indian Standards [IS 1180 (Part 1):2014] allows options for the pole mounting arrangement for transformer up to 500 kVA.**

**The distribution utility has to decide the use of single pole, double pole or four pole structure to install the transformer up to 500 kVA as per the location and practices being followed in the utility.**

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3122  
ANSWERED ON 03.08.2017**

**PER CAPITA CONSUMPTION OF POWER**

**3122. SHRI TEJ PRATAP SINGH YADAV:**

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

- (a) whether India is 5<sup>th</sup> largest producer of electricity in the world but it ranks 150<sup>th</sup> in terms of per capita consumption;**
- (b) if so, the details thereof;**
- (c) whether the demand and supply mismatch for electricity is growing even as millions have no access to power at all, especially in rural areas;**
- (d) if so, the details thereof;**
- (e) whether reforms in power sector is imperative as estimated financial loss amounts to over 4 per cent of GDP; and**
- (f) if so, the steps being taken by the Government in this regard?**

**A N S W E R**

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

**( SHRI PIYUSH GOYAL )**

**(a) & (b) : As per information available from International Energy Agency (IEA), India was the 3<sup>rd</sup> largest producer of electricity in the world and 105<sup>th</sup> in terms of per capita consumption in 2014. Top ten electricity producing countries in the world as per data by Key World Energy Statistics 2016 (IEA) for the year 2014 is given at Annexure-I. The per capita consumption of various countries as per Key World Energy Statistics 2016 (International Energy Agency) for the year 2014 is given at Annexure-II.**

**(c) & (d) : The gap in demand and supply of electricity, in terms of Peak in MW and Energy in MU has progressively reduced despite increase in Peak demand and Energy requirement. The details are given at Annexure-III.**

**(e) & (f) : As per the report of PFC, the aggregate losses for utilities selling power directly to consumers are having decreasing trend. As a reform measure, Ministry of Power has commenced UDAY (Ujwal DISCOM Assurance Yojana), [a Scheme for the Financial turnaround of Power Distribution Companies (DISCOMs)] with a view to improving the operational and financial efficiency of the State DISCOMs.**

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**ANNEXURE-I**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 3122 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**Top ten electricity producing countries in the world as per data by Key World Energy Statistics 2016 (IEA) for the year 2014**

<b>S. No.</b>	<b>Country</b>	<b>Electricity Production (TWh)</b>
<b>1</b>	<b>People's Rep. of China</b>	<b>5666</b>
<b>2</b>	<b>United States</b>	<b>4319</b>
<b>3</b>	<b>India</b>	<b>1279*</b>
<b>4</b>	<b>Russian Federation</b>	<b>1062</b>
<b>5</b>	<b>Japan</b>	<b>1036</b>
<b>6</b>	<b>Canada</b>	<b>656</b>
<b>7</b>	<b>Germany</b>	<b>622</b>
<b>8</b>	<b>Brazil</b>	<b>591</b>
<b>9</b>	<b>France</b>	<b>557</b>
<b>10</b>	<b>Korea</b>	<b>546</b>

***\*Figure in respect of India has been calculated by CEA and pertains to the financial year 2014-15***

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**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED  
QUESTION NO. 3122 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**Per capita consumption of various countries as per Key World Energy Statistics 2016  
(International Energy Agency) for the year 2014**

<b>Sl. No.</b>	<b>Region/Country</b>	<b>Electricity per capita consumption (kWh/popl.)</b>
1	Iceland	53896
2	Norway	23001
3	Bahrain	19224
4	Qatar	16736
5	Canada	15544
6	Kuwait	15333
7	Finland	15246
8	Luxembourg	13873
9	Sweden	13480
10	United States	12962
11	United Arab Emirates	11245
12	Chinese Taipei	10738
13	Korea	10564
14	Brunei Darussalam	10113
15	Australia	10002
16	Saudi Arabia	9410
17	New Zealand	9131
18	Singapore	8844
19	Austria	8358
20	Japan	7829
21	Belgium	7745
22	Switzerland	7520
23	Trinidad and Tobago	7137
24	Germany	7035
25	France	6955
26	Slovenia	6728
27	Estonia	6725
28	Netherlands	6713
29	Israel	6604
30	Russian Federation	6603
31	Czech Republic	6259
32	Oman	6128
33	Hong Kong, China	6073
34	Denmark	5859
35	Gibraltar	5818
36	Ireland	5725
37	Kazakhstan	5600
38	Spain	5358
39	Slovak Republic	5137
40	United Kingdom	5131
41	Greece	5047
42	Malta	5012
43	Italy	5002
44	Cyprus <sup>5</sup>	4868
45	Curaçao	4795

<b>46</b>	<b>Bulgaria</b>	<b>4709</b>
<b>47</b>	<b>Portugal</b>	<b>4663</b>
<b>48</b>	<b>Malaysia</b>	<b>4646</b>
<b>49</b>	<b>Montenegro</b>	<b>4611</b>
<b>50</b>	<b>Serbia</b>	<b>4273</b>
<b>51</b>	<b>South Africa</b>	<b>4240</b>
<b>52</b>	<b>Hungary</b>	<b>3966</b>
<b>53</b>	<b>China (People's Rep. of)</b>	<b>3927</b>
<b>54</b>	<b>Poland</b>	<b>3923</b>
<b>55</b>	<b>Chile</b>	<b>3863</b>
<b>56</b>	<b>Lithuania</b>	<b>3826</b>
<b>57</b>	<b>Croatia</b>	<b>3715</b>
<b>58</b>	<b>Suriname<sup>5</sup></b>	<b>3699</b>
<b>59</b>	<b>Belarus</b>	<b>3682</b>
<b>60</b>	<b>Lebanon</b>	<b>3565</b>
<b>61</b>	<b>Latvia<sup>5</sup></b>	<b>3514</b>
<b>62</b>	<b>FYR of Macedonia</b>	<b>3500</b>
<b>63</b>	<b>Ukraine</b>	<b>3412</b>
<b>64</b>	<b>Bosnia and Herzegovina</b>	<b>3144</b>
<b>65</b>	<b>Uruguay</b>	<b>3068</b>
<b>66</b>	<b>Argentina</b>	<b>3052</b>
<b>67</b>	<b>Islamic Rep. of Iran</b>	<b>2996</b>
<b>68</b>	<b>Turkey</b>	<b>2870</b>
<b>69</b>	<b>Kosovo</b>	<b>2803</b>
<b>70</b>	<b>Turkmenistan</b>	<b>2759</b>
<b>71</b>	<b>Venezuela</b>	<b>2661</b>
<b>72</b>	<b>Romania</b>	<b>2584</b>
<b>73</b>	<b>Brazil</b>	<b>2578</b>
<b>74</b>	<b>Thailand</b>	<b>2566</b>
<b>75</b>	<b>Jordan</b>	<b>2517</b>
<b>76</b>	<b>Albania</b>	<b>2305</b>
<b>77</b>	<b>Georgia</b>	<b>2225</b>
<b>78</b>	<b>Azerbaijan</b>	<b>2202</b>
<b>79</b>	<b>Mauritius</b>	<b>2182</b>
<b>80</b>	<b>Mexico</b>	<b>2169</b>
<b>81</b>	<b>Panama</b>	<b>2082</b>
<b>82</b>	<b>Mongolia</b>	<b>2027</b>
<b>83</b>	<b>Costa Rica</b>	<b>1958</b>
<b>84</b>	<b>Kyrgyzstan</b>	<b>1942</b>
<b>85</b>	<b>Armenia</b>	<b>1901</b>
<b>86</b>	<b>Libya</b>	<b>1841</b>
<b>87</b>	<b>Botswana</b>	<b>1708</b>
<b>88</b>	<b>Egypt</b>	<b>1699</b>
<b>89</b>	<b>Uzbekistan</b>	<b>1645</b>
<b>90</b>	<b>Dominican Republic</b>	<b>1578</b>
<b>91</b>	<b>Namibia</b>	<b>1563</b>
<b>92</b>	<b>Paraguay</b>	<b>1563</b>
<b>93</b>	<b>Tajikistan</b>	<b>1492</b>
<b>94</b>	<b>Tunisia</b>	<b>1463</b>
<b>95</b>	<b>Cuba</b>	<b>1442</b>
<b>96</b>	<b>Vietnam</b>	<b>1439</b>
<b>97</b>	<b>Moldova</b>	<b>1386</b>
<b>98</b>	<b>Ecuador</b>	<b>1381</b>
<b>99</b>	<b>Algeria</b>	<b>1363</b>
<b>100</b>	<b>Iraq</b>	<b>1313</b>

<b>101</b>	<b>Peru</b>	<b>1308</b>
<b>102</b>	<b>Gabon</b>	<b>1303</b>
<b>103</b>	<b>Colombia</b>	<b>1290</b>
<b>104</b>	<b>Jamaica</b>	<b>1110</b>
<b>105</b>	<b>India</b>	<b>1010</b>
<b>106</b>	<b>El Salvador</b>	<b>966</b>
<b>107</b>	<b>Morocco</b>	<b>912</b>
<b>108</b>	<b>Syrian Arab Republic</b>	<b>823</b>
<b>109</b>	<b>Indonesia</b>	<b>814</b>
<b>110</b>	<b>Bolivia</b>	<b>753</b>
<b>111</b>	<b>Philippines</b>	<b>706</b>
<b>112</b>	<b>Zambia</b>	<b>703</b>
<b>113</b>	<b>Honduras</b>	<b>697</b>
<b>114</b>	<b>DPR of Korea</b>	<b>602</b>
<b>115</b>	<b>Nicaragua</b>	<b>580</b>
<b>116</b>	<b>Guatemala</b>	<b>575</b>
<b>117</b>	<b>Zimbabwe</b>	<b>543</b>
<b>118</b>	<b>Sri Lanka</b>	<b>535</b>
<b>119</b>	<b>Pakistan</b>	<b>472</b>
<b>120</b>	<b>Mozambique</b>	<b>463</b>
<b>121</b>	<b>Ghana</b>	<b>357</b>
<b>122</b>	<b>Angola</b>	<b>347</b>
<b>123</b>	<b>Bangladesh</b>	<b>311</b>
<b>124</b>	<b>Côte d'Ivoire</b>	<b>281</b>
<b>125</b>	<b>Cameroon</b>	<b>274</b>
<b>126</b>	<b>Cambodia</b>	<b>270</b>
<b>127</b>	<b>Sudan</b>	<b>248</b>
<b>128</b>	<b>Senegal</b>	<b>222</b>
<b>129</b>	<b>Yemen</b>	<b>217</b>
<b>130</b>	<b>Republic of Congo</b>	<b>213</b>
<b>131</b>	<b>Myanmar</b>	<b>211</b>
<b>132</b>	<b>Kenya</b>	<b>171</b>
<b>133</b>	<b>Togo</b>	<b>155</b>
<b>134</b>	<b>Nigeria</b>	<b>144</b>
<b>135</b>	<b>Nepal</b>	<b>140</b>
<b>136</b>	<b>Dem. Rep. of the Congo</b>	<b>107</b>
<b>137</b>	<b>Tanzania</b>	<b>100</b>
<b>138</b>	<b>Benin</b>	<b>97</b>
<b>139</b>	<b>Ethiopia</b>	<b>70</b>
<b>140</b>	<b>Eritrea</b>	<b>63</b>
<b>141</b>	<b>Niger</b>	<b>52</b>
<b>142</b>	<b>Haiti</b>	<b>39</b>
<b>143</b>	<b>South Sudan</b>	<b>39</b>

**Note: Figure in respect of India has been calculated by CEA and pertains to the financial year 2014-15**

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**ANNEXURE-III****ANNEXURE REFERRED TO IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO. 3122 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**Year wise Demand and supply of electricity**

FY	Peak demand (MW)	Peak Met (MW)	Gap		Energy requirement (MU)	Energy supplied (MU)	Gap	
			(MW)	%			(MU)	(%)
2014-15	1,48,166	1,41,160	-7,006,	-4.7%	10,68,923	10,30,785	-38,138	-3.6%
2015-16	1,53,366	1,48,463	-4,903,	-3.2%	11,14,408	10,90,850	-23,558	-2.1%
2016-17	1,59,542	1,56,542	-991,	-1.6%	11,42,928	11,35,332	-7,596	-0.7%

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3125  
ANSWERED ON 03.08.2017**

**POWER PURCHASE AGREEMENT**

**3125. SHRIMATI RITA TARAI:**

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

- (a) whether power is no more a scarce commodity in the present scenario and is available on exchanges at an instantly agreed rate;**
- (b) if so, the details thereof;**
- (c) whether it has become virtually difficult and even unpredictable to know the power rate over a longer period of time and if so, the details thereof;**
- (d) whether the risk borne by the States like Odisha entering into 25 years PPA becomes too high to handle on account of volatility of power prices in the long run, if so, the details thereof; and**
- (e) whether his Ministry proposes to consider necessary modification for signing of the PPAs between the Generator and Beneficiary for a period of 5 years (not for 25 years) with provision for review after 5 years, if so, the details thereof and the time-frame for the same?**

**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, power is no more a scarce commodity. The peak and energy shortages have progressively reduced over the year and were at 1.6% and 0.7% respectively in the year 2016-17. Price discovered on exchanges follows principles of demand and supply. The price and quantum of electricity to be transacted is determined through a double sided closed auction bidding process on exchanges. The details of Power Supply position and Peak Demand/Peak met of the states for the month of June, 2017 as per the Central Electricity Authority report is attached at Annexure-I. The rates prevalent on the Power Exchanges as per the Central Electricity Regulatory Commission (CERC) Market Monitoring Cell report are attached at Annexure-II.**

**.....2.**

**(c) : In the case of long term PPAs under cost plus approach, the tariff is governed by certain pre-specified factors in the Regulations of the Appropriate Commission, which is generally determined annually. In case of long term PPAs based on tariff based competitive bidding; the year to year tariff is based on adjustments based on pre-specified indices on escalable components. In case of short term contracts, the rate of power is unpredictable only because the rate fluctuates significantly according to the demand and supply during the period.**

**(d) & (e) : State Distribution Companies are expected to manage their power purchase portfolio to optimize power purchase cost and risks using various power purchase agreement (PPAs) under Long Term (upto 25 years), Medium term (more than 1 Year upto 5 years) and Short Term (upto 1 year) for which adequate provisions already exists under the Model Bidding Documents notified under section 63 of the Electricity Act, 2003.**

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## ANNEXURE REFERRED TO IN REPLY TO PARTS (a) &amp; (d) OF UNSTARRED QUESTION NO. 3125 ANSWERED IN THE LOK SABHA ON 03.08.2017.

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## Energy Power Supply Position Report (Revised)

Figures in MU net

State/System/ Region	May,2017				April,2017 to May,2017			
	Energy Requirement	Energy Supplied	Energy not Supplied		Energy Requirement	Energy Supplied	Energy not Supplied	
Chandigarh	174	174	0	0.0	308	308	0	0.0
Delhi	3,375	3,373	3	0.1	5,985	5,981	4	0.1
Haryana	4,649	4,649	0	0.0	8,301	8,301	0	0.0
Himachal Pradesh	803	799	4	0.5	1,572	1,564	8	0.5
Jammu & Kashmir	1,597	1,274	323	20.2	3,104	2,478	626	20.2
Punjab	5,004	5,004	0	0.0	8,541	8,541	0	0.0
Rajasthan	6,015	5,927	88	1.5	11,271	11,172	99	0.9
Uttar Pradesh	11,055	10,935	120	1.1	20,819	20,600	219	1.1
Uttarakhand	1,226	1,221	5	0.4	2,307	2,301	6	0.3
<b>Northern Region</b>	<b>33,900</b>	<b>33,357</b>	<b>542</b>	<b>1.6</b>	<b>62,207</b>	<b>61,244</b>	<b>963</b>	<b>1.5</b>
Chhattisgarh	2,271	2,271	0	0.0	4,782	4,782	0	0.0
Gujarat	9,853	9,853	0	0.0	19,793	19,793	0	0.0
Madhya Pradesh	5,544	5,544	0	0.0	10,876	10,876	0	0.0
Maharashtra	14,145	14,112	33	0.2	28,300	28,249	51	0.2
Daman & Diu	217	217	0	0.0	424	424	0	0.0
Dadra & Nagar Haveli	518	518	0	0.0	1,024	1,024	0	0.0
Goa	356	356	0	0.0	724	724	0	0.0
<b>Western Region</b>	<b>32,905</b>	<b>32,872</b>	<b>33</b>	<b>0.1</b>	<b>65,923</b>	<b>65,872</b>	<b>51</b>	<b>0.1</b>
Andhra Pradesh	4,984	4,979	5	0.1	10,026	10,019	7	0.1
Telangana	4,422	4,421	2	0.0	9,414	9,410	4	0.0
Karnataka	5,455	5,453	2	0.0	11,684	11,679	5	0.0
Kerala	2,232	2,228	3	0.1	4,505	4,500	5	0.1
Tamil Nadu	9,599	9,596	3	0.0	19,043	19,035	8	0.0
Puducherry	244	244	0	0.1	480	480	0	0.0
Lakshadweep #	4	4	0	0	8	8	0	0
<b>Southern Region</b>	<b>26,936</b>	<b>26,920</b>	<b>16</b>	<b>0.1</b>	<b>55,154</b>	<b>55,123</b>	<b>31</b>	<b>0.1</b>

<b>Bihar</b>	<b>2,325</b>	<b>2,219</b>	<b>107</b>	<b>4.6</b>	<b>4,443</b>	<b>4,260</b>	<b>183</b>	<b>4.1</b>
<b>DVC</b>	<b>1,770</b>	<b>1,762</b>	<b>7</b>	<b>0.4</b>	<b>3,519</b>	<b>3,510</b>	<b>9</b>	<b>0.3</b>
<b>Jharkhand</b>	<b>658</b>	<b>656</b>	<b>2</b>	<b>0.4</b>	<b>1,337</b>	<b>1,330</b>	<b>7</b>	<b>0.5</b>
<b>Odisha</b>	<b>2,556</b>	<b>2,555</b>	<b>1</b>	<b>0.0</b>	<b>5,056</b>	<b>5,054</b>	<b>2</b>	<b>0.0</b>
<b>West Bengal</b>	<b>4,827</b>	<b>4,799</b>	<b>28</b>	<b>0.6</b>	<b>9,533</b>	<b>9,477</b>	<b>56</b>	<b>0.6</b>
<b>Sikkim</b>	<b>37</b>	<b>37</b>	<b>0</b>	<b>0.0</b>	<b>74</b>	<b>74</b>	<b>0</b>	<b>0.0</b>
<b>Andaman- Nicobar</b>	<b>20</b>	<b>15</b>	<b>5</b>	<b>25</b>	<b>40</b>	<b>30</b>	<b>10</b>	<b>25.0</b>
<b>Eastern Region</b>	<b>12,174</b>	<b>12,029</b>	<b>145</b>	<b>1.2</b>	<b>23,962</b>	<b>23,707</b>	<b>255</b>	<b>1.1</b>
<b>Arunachal Pradesh</b>	<b>64</b>	<b>63</b>	<b>1</b>	<b>1.9</b>	<b>126</b>	<b>124</b>	<b>2</b>	<b>1.6</b>
<b>Assam</b>	<b>756</b>	<b>714</b>	<b>42</b>	<b>5.6</b>	<b>1,404</b>	<b>1,321</b>	<b>83</b>	<b>5.9</b>
<b>Manipur</b>	<b>63</b>	<b>62</b>	<b>1</b>	<b>1.9</b>	<b>123</b>	<b>121</b>	<b>2</b>	<b>1.6</b>
<b>Meghalaya</b>	<b>129</b>	<b>129</b>	<b>0</b>	<b>0.0</b>	<b>253</b>	<b>253</b>	<b>0</b>	<b>0.0</b>
<b>Mizoram</b>	<b>44</b>	<b>43</b>	<b>1</b>	<b>2.0</b>	<b>86</b>	<b>85</b>	<b>1</b>	<b>1.2</b>
<b>Nagaland</b>	<b>68</b>	<b>67</b>	<b>1</b>	<b>1.6</b>	<b>128</b>	<b>126</b>	<b>2</b>	<b>1.6</b>
<b>Tripura</b>	<b>264</b>	<b>260</b>	<b>4</b>	<b>1.5</b>	<b>490</b>	<b>480</b>	<b>10</b>	<b>2.0</b>
<b>North-Eastern Region</b>	<b>1,389</b>	<b>1,339</b>	<b>50</b>	<b>3.6</b>	<b>2,610</b>	<b>2,510</b>	<b>100</b>	<b>3.8</b>
<b>All India</b>	<b>107,304</b>	<b>106,517</b>	<b>787</b>	<b>0.7</b>	<b>209,856</b>	<b>208,455</b>	<b>1,401</b>	<b>0.7</b>

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

## Peak Power Supply Position Report (Revised)

Figures in MW net

State System Region	May,2017				April,2017 to May,2017			
	Peak Demand	Peak Met	Demand not Met		Peak Demand	Peak Met	Demand not Met	
	( MW )	(MW)	(MW)	( % )	( MW )	(MW)	(MW)	( % )
<b>Chandigarh</b>	340	340	0	0.0	340	340	0	0.0
<b>Delhi</b>	6,021	6,021	0	0.0	6,021	6,021	0	0.0
<b>Haryana</b>	7,780	7,780	0	0.0	7,780	7,780	0	0.0
<b>Himachal Pradesh</b>	1,349	1,349	0	0.0	1,349	1,349	0	0.0
<b>Jammu &amp; Kashmir</b>	2,668	2,134	534	20.0	2,668	2,134	534	20.0
<b>Punjab</b>	8,229	8,229	0	0.0	8,229	8,229	0	0.0
<b>Rajasthan</b>	10,305	10,305	0	0.0	10,305	10,305	0	0.0
<b>Uttar Pradesh</b>	18,646	17,819	827	4.4	18,646	17,819	827	4.4
<b>Uttarakhand</b>	1,992	1,992	0	0.0	1,992	1,992	0	0.0
<b>Northern Region</b>	52,517	51,820	697	1.3	52,517	51,820	697	1.3
<b>Chhattisgarh</b>	3,737	3,713	24	0.6	3,888	3,887	1	0.0
<b>Gujarat</b>	15,325	15,325	0	0.0	15,325	15,325	0	0.0
<b>Madhya Pradesh</b>	8,227	8,227	0	0.0	8,402	8,402	0	0.0
<b>Maharashtra</b>	21,874	21,778	96	0.4	22,542	22,494	48	0.2
<b>Daman &amp; Diu</b>	339	339	0	0.0	339	339	0	0.0
<b>Dadra &amp; Nagar Haveli</b>	768	768	0	0.0	768	768	0	0.0
<b>Goa</b>	505	504	1	0.1	558	557	1	0.2
<b>Western Region</b>	49,208	49,048	160	0.3	49,860	49,788	72	0.1
<b>Andhra Pradesh</b>	7,914	7,882	32	0.4	7,914	7,882	32	0.4
<b>Telangana</b>	7,412	7,396	16	0.2	9,009	9,001	8	0.1
<b>Karnataka</b>	9,376	9,358	17	0.2	9,992	9,987	5	0.1
<b>Kerala</b>	3,889	3,837	52	1.3	3,889	3,862	27	0.7
<b>Tamil Nadu</b>	14,749	14,743	6	0.0	15,001	14,975	26	0.2
<b>Puducherry</b>	379	379	0	0.0	388	387	0	0.1
<b>Lakshadweep#</b>	8	8	0	0	8	8	0	0
<b>Southern Region</b>	41,127	40,885	242	0.6	42,770	42,535	235	0.5

<b>Bihar</b>	<b>4,122</b>	<b>4,021</b>	<b>101</b>	<b>2.5</b>	<b>4,122</b>	<b>4,021</b>	<b>101</b>	<b>2.5</b>
<b>DVC</b>	<b>2,684</b>	<b>2,684</b>	<b>0</b>	<b>0.0</b>	<b>2,684</b>	<b>2,684</b>	<b>0</b>	<b>0.0</b>
<b>Jharkhand</b>	<b>1,211</b>	<b>1,211</b>	<b>0</b>	<b>0.0</b>	<b>1,211</b>	<b>1,211</b>	<b>0</b>	<b>0.0</b>
<b>Odisha</b>	<b>4,208</b>	<b>4,208</b>	<b>0</b>	<b>0.0</b>	<b>4,227</b>	<b>4,227</b>	<b>0</b>	<b>0.0</b>
<b>West Bengal</b>	<b>7,515</b>	<b>7,495</b>	<b>20</b>	<b>0.3</b>	<b>7,820</b>	<b>7,793</b>	<b>27</b>	<b>0.3</b>
<b>Sikkim</b>	<b>78</b>	<b>78</b>	<b>0</b>	<b>0.0</b>	<b>91</b>	<b>91</b>	<b>0</b>	<b>0.0</b>
<b>Andaman- Nicobar</b>	<b>40</b>	<b>32</b>	<b>8</b>	<b>20</b>	<b>40</b>	<b>32</b>	<b>8</b>	<b>20</b>
<b>Eastern Region</b>	<b>19,149</b>	<b>19,032</b>	<b>117</b>	<b>0.6</b>	<b>19,238</b>	<b>19,191</b>	<b>47</b>	<b>0.2</b>
<b>Arunachal Pradesh</b>	<b>145</b>	<b>145</b>	<b>0</b>	<b>0.2</b>	<b>145</b>	<b>145</b>	<b>0</b>	<b>0.2</b>
<b>Assam</b>	<b>1,649</b>	<b>1,580</b>	<b>69</b>	<b>4.2</b>	<b>1,649</b>	<b>1,580</b>	<b>69</b>	<b>4.2</b>
<b>Manipur</b>	<b>163</b>	<b>161</b>	<b>2</b>	<b>1.2</b>	<b>163</b>	<b>161</b>	<b>2</b>	<b>1.2</b>
<b>Meghalaya</b>	<b>304</b>	<b>304</b>	<b>0</b>	<b>0.1</b>	<b>304</b>	<b>304</b>	<b>0</b>	<b>0.1</b>
<b>Mizoram</b>	<b>86</b>	<b>85</b>	<b>1</b>	<b>0.8</b>	<b>86</b>	<b>85</b>	<b>1</b>	<b>0.8</b>
<b>Nagaland</b>	<b>132</b>	<b>131</b>	<b>1</b>	<b>0.4</b>	<b>132</b>	<b>131</b>	<b>1</b>	<b>0.4</b>
<b>Tripura</b>	<b>280</b>	<b>276</b>	<b>4</b>	<b>1.4</b>	<b>280</b>	<b>276</b>	<b>4</b>	<b>1.4</b>
<b>North-Eastern Region</b>	<b>2,472</b>	<b>2,391</b>	<b>81</b>	<b>3.3</b>	<b>2,472</b>	<b>2,391</b>	<b>81</b>	<b>3.3</b>
<b>All India</b>	<b>159,816</b>	<b>156,733</b>	<b>3,083</b>	<b>1.9</b>	<b>159,816</b>	<b>158,393</b>	<b>1,423</b>	<b>0.9</b>

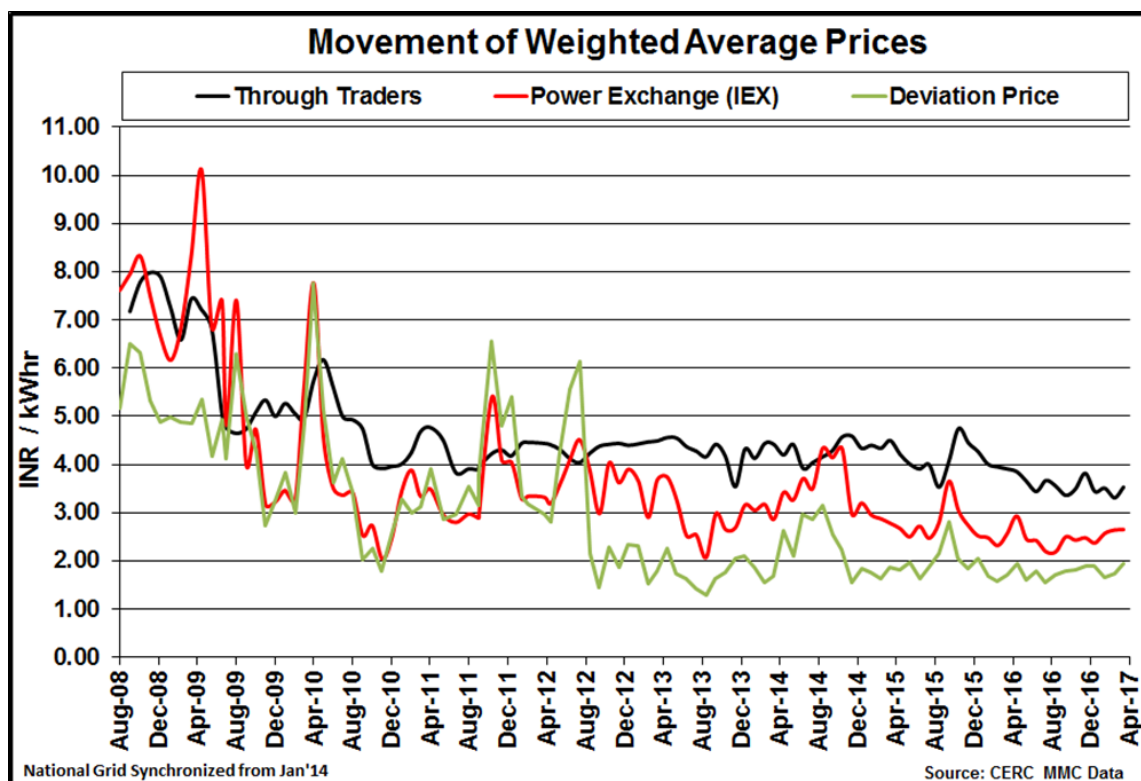
**#Lakshadweep and Andaman & Nicobar Islands are stand-alone systems, power supply position of these, does not form part of Regional requirement and availability**

<b>Notified Power Cuts/Restrictions on Industries during June,2017</b>	
<b>State/ Region</b>	<b>Energy/Demand Cut</b>
<b>Northern Region</b>	
<b>Chandigarh*</b>	
<b>Delhi</b>	<b>No Notified Cuts</b>
<b>Haryana</b>	<b>No Notified Cuts</b>
<b>Himachal Pradesh</b>	<b>No Notified Cuts</b>
<b>Jammu &amp; Kashmir*</b>	
<b>Punjab</b>	<b>No Notified Cuts</b>
<b>Rajasthan</b>	<b>No Notified Cuts</b>
<b>Uttar Pradesh</b>	<b>No Notified Cuts</b>
<b>Uttarakhand</b>	<b>No Notified Cuts</b>
<b>Western Region</b>	
<b>Chhattisgarh</b>	<b>No Notified Cuts</b>
<b>Gujarat</b>	<b>No Notified Cuts</b>
<b>Madhya Pradesh</b>	<b>No Notified Cuts</b>
<b>Maharashtra</b>	<b>No Notified Cuts</b>
<b>Goa</b>	<b>No Notified Cuts</b>
<b>Southern Region</b>	
<b>Andhra Pradesh</b>	<b>No Notified Cuts</b>
<b>Telangana</b>	<b>No Notified Cuts</b>
<b>Karnataka</b>	<b>No Notified Cuts</b>
<b>Kerala</b>	<b>No Notified Cuts</b>
<b>Tamil Nadu</b>	<b>No Notified Cuts</b>
<b>Puducherry</b>	<b>No Notified Cuts</b>
<b>Eastern Region</b>	
<b>Bihar</b>	<b>No Notified Cuts</b>
<b>Jharkhand</b>	<b>No Notified Cuts</b>
<b>Odisha</b>	<b>No Notified Cuts</b>
<b>West Bengal</b>	<b>No Notified Cuts</b>
<b>* Data not received .</b>	

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**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (d) OF UNSTARRED QUESTION NO. 3125 TO BE ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**Source: CERC Market Monitoring Cell report**

**CERC notifies the Average Power Purchase cost (APPC) at the National level by computing the average of APPC of all States and Union Territories, weighted by volume of conventional power purchased by the respective State/UT. CERC order dated 25.1.2016, for “Determination of Average Power Purchase Cost (APPC) at the national level (Petition No. 15/SM/2015) prescribed the National APPC as Rs 3.40/ kWh.**

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3130  
ANSWERED ON 03.08.2017**

**ELECTRIFICATION OF REMOTE/BACKWARD AREAS**

**3130. SHRI GAURAV GOGOI:  
SHRI JYOTIRADITYA M. SCINDIA:**

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

- (a) whether the Union Government has since taken any steps for electrification of villages situated in backward and remote areas of the country through new and renewable energy sources;**
- (b) if so, the details in this regard and the details of funds released by the Union Government to various States/UTs during the last three years; and**
- (c) the present target of the Union Government to electrify villages in backward and remote areas of the country through new and renewable energy sources and the details of the steps to be taken to achieve it?**

**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) : Under Decentralized Distributed Generation (DDG) of Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), electricity access is provided to all the villages/habitations where grid connectivity is either not feasible or not cost effective including those situated in backward and remote areas of the country. This includes mini grid and standalone system.**

**Subsidy of Rs.246.84 crore was disbursed under DDG during the last three years i.e. 2014-15, 2015-16 & 2016-17. The State-wise details are furnished at Annexure.**

**Under DDG, 4,220 projects have been sanctioned with the project cost of Rs.1354.60 crore, in various States across the country, as on 30.6.2017. All the remaining unelectrified villages are targeted to be electrified by May, 2018.**

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**ANNEXURE**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 3130 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**State-wise capital subsidy released under DDG during the last three years 2014-15, 2015-16 and 2016-17**

<b>Sr. No</b>	<b>Name of the State</b>	<b>Subsidy amount (Rs. in crore)</b>
<b>1</b>	<b>Andhra Pradesh</b>	<b>14.4025</b>
<b>2</b>	<b>Assam</b>	<b>81.6966</b>
<b>3</b>	<b>Chhattisgarh</b>	<b>96.1373</b>
<b>4</b>	<b>Karnataka</b>	<b>5.2974</b>
<b>5</b>	<b>Kerala</b>	<b>1.2439</b>
<b>6</b>	<b>Madhya Pradesh</b>	<b>10.5729</b>
<b>7</b>	<b>Rajasthan</b>	<b>24.6835</b>
<b>8</b>	<b>Uttarakhand</b>	<b>1.4834</b>
<b>9</b>	<b>Uttar Pradesh</b>	<b>11.3187</b>
	<b>Grand Total</b>	<b>246.8363</b>

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3160  
ANSWERED ON 03.08.2017**

**SALE OF ELECTRICITY TO RAILWAYS AT A HIGHER PRICE**

**†3160. SHRIMATI VEENA DEVI:**

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

- (a) whether an agreement has been signed to sell electricity to Indian Railways through Dabhol Power Project at the rate of Rs. 5.5 per unit upto next five years;**
- (b) if so, the details thereof;**
- (c) whether the said selling price of electricity is much higher than the selling prices applied to the other big buyers of electricity in the country;**
- (d) if so, the facts thereof;**
- (e) the reasons behind selling electricity at higher price; and**
- (f) the reasons due to which the cost of power generation in Dabhol Project is higher than the average cost of power generation?**

**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 (f) : Yes, Madam. Ratnagiri Gas & Power Pvt. Ltd. (RGPPL) has signed a Power Purchase Agreement (PPA) with Indian Railways for supply of 500 MW power at a fixed tariff of Rs.5.50 per unit for five years w.e.f 01.04.2017. The selling price of electricity by a power plant depends upon the cost of generation, which consists of the depreciation, the fuel cost, the O&M cost and the interest on capital etc. RGPPL is a gas based power plant. It was allocated 7.6 Million Metric Standard Cubic Meter per Day (MMSCMD) of domestic gas. However, due to non-availability of domestic gas, it is receiving only 0.6 MMSCMD of domestic gas. The balance requirement of gas is being met from imported Liquefied Natural Gas (LNG), which is more expensive as compared to domestic gas.**

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3163  
ANSWERED ON 03.08.2017**

**LOSSES OF DISCOMS**

**3163. SHRI SHIVKUMAR UDASI:**

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

- (a) the details of the State DISCOMS which are running in loss;**
- (b) whether UDAY is failing to bring in new dawn for the State-run power distribution sector; and**
- (c) if so, the details thereof, and the details of the estimated targets and results achieved so far, State-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) : As per 'Report on Performance of State Power Utilities' published by Power Finance Corporation (PFC) Ltd., the details of State DISCOMs which are running losses during the financial year 2014-15, are given at Annexure.**

**(b) & (c) : Interventions under UDAY including reduction in interest costs & cost of power and efficiency gains have yielded encouraging results.**

**The participating states have already issued Bonds of approximately Rs.2.32 Lakh Crore, which addresses 86% of the debt envisaged in Memorandum of Understanding (MoU) executed under UDAY. As per the unaudited data submitted by States, the participating states have achieved an improvement of 1.07% in Aggregate Technical & Commercial (AT&C) losses and Rs.0.13 a Unit in ACS-ARR gaps in FY 2017. However, different states have different trajectories since they have joined UDAY at different time.**

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## ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3163  
ANSWERED IN THE LOK SABHA ON 03.08.2017.

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## Details of State-wise and Utility-wise loss incurred for the year 2014-15

Region	State	Utility	Loss on subsidy received basis (Rs. in cr.)	
Eastern	Bihar	NBPDCL	-491	
		SBPDCL	-748	
	Jharkhand	JBVNL	-37	
	Odisha	CESU	-202	
		NESCO	-123	
		SESCO	-379	
		WESCO	-224	
	Sikkim	Sikkim PD	-126	
	North Eastern	Arunachal Pradesh	Arunachal PD	-257
		Assam	APDCL	-578
Meghalaya		MePDCL	-202	
Mizoram		Mizoram PD	-192	
Nagaland		Nagaland PD	-315	
Tripura		TSECL	-82	
Northern	Haryana	DHBVNL	-636	
		UHBVNL	-1,481	
	Himachal Pradesh	HPSEB Ltd.	-125	
	Jammu & Kashmir	J&K PDD	-3,913	
	Punjab	PSPCL	-1,100	
	Rajasthan	AVVNL	-3,593	
		JDVVNL	-4,146	
		JVVNL	-4,735	
	Uttar Pradesh	DVVN	-2,936	
		KESCO	-168	
		MVVN	-1,994	
		Pash VVN	-1,577	
		Poorv VVN	-2,000	
		Uttarakhand	Ut PCL	-260
Southern	Andhra Pradesh	APEPDCL	-722	
		APSPDCL	-1,827	
	Karnataka	GESCOM	-110	
	Kerala	KSEBL	-1,273	
	Tamil Nadu	TANGEDCO	-12,757	
	Telangana	TSNPDCL	-1,741	
		TSSPDCL	-1,171	
Western	Chhattisgarh	CSPDCL	-1,569	
	Goa	Goa PD	-17	
		Madhya Pradesh	MP Madhya Kshetra VVCL	-2,765
		MP Paschim Kshetra VVCL	-1,061	
		MP Purv Kshetra VVCL	-1,175	
Maharashtra	MSEDCL	-366		

Source : PFC

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3173  
ANSWERED ON 03.08.2017**

**DISTRIBUTION OF LED**

**3173. SHRI RAJESH KUMAR DIWAKER:  
SHRI VINOD KUMAR SONKAR:**

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

- (a) the percentage of target for distribution of LED bulbs under UJALA Scheme remains to be achieved, State/UTwise;**
- (b) the details of checks done by Government to ensure adherence to the quality specifications of LED bulbs that are being distributed;**
- (c) the details of criteria adopted for distribution of LED bulbs under the UJALA scheme initiated by the Government keeping in view the shortage of power in the country;**
- (d) the States of the country wherein LED bulbs are being distributed on upfront payment and un-bill finance scheme;**
- (e) the companies which are distributing LED bulbs in Uttar Pradesh and the district-wise number of centres in Uttar Pradesh;**
- (f) whether any complaints have been received against any company regarding not taking interest in LED bulb distribution and excessive charging and if so, the Statewise details of the action taken against such companies; and**
- (g) the States where power supply has been augmented as a result of use of LED bulbs?**

**A N S W E R**

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

**( SHRI PIYUSH GOYAL )**

**(a) : Unnat Jyoti by Affordable LED for All (UJALA) scheme was launched on 5<sup>th</sup> January 2015 to provide LED bulbs to domestic consumers with a target to replace 77 crore incandescent bulbs with LED bulbs by March, 2019. No States/UTs wise targets have been set. As on 1<sup>st</sup> August, 2017, EESL has distributed 25.28 crore LED bulbs throughout the country, the State/UT-wise details are given at Annexure-I. In addition, the private sector has also sold 41.44 crore LED bulbs upto June, 2017.**

**(b) :** EESL's procurements conform to BIS specification IS 16102 (Part 2): 2012 for performance requirements of self-ballast lamps. Further, these bulbs carry a 3 year free replacement warranty against technical defects. There are stringent quality checks to ensure the quality of LED bulbs.

**(c) :** There is no shortage of power in the country, rather the country has surplus electricity capacity at present to meet the current requirements. Besides, at present, India is net exporter of electricity to Nepal and Bangladesh.

Under the UJALA Scheme, EESL aggregates the demand and procures LED bulbs through competitive bidding process to get the lowest price compared to retail market. The consumers, having metered connection, can acquire LED bulbs from designated distribution centres set up at various locations across the Country.

**(d) :** LED bulbs are being distributed on upfront payment basis and on-bill finance scheme in 36 States and UTs across India under UJALA scheme.

**(e) :** The name of the companies which are distributing LED bulbs in Uttar Pradesh and number of LED distribution centres District-wise in the state of Uttar Pradesh are given at Annexure-II.

**(f) :** No specific complaints have been received regarding excessive charging and lack of interest by distributing agencies under UJALA scheme. EESL has deployed field monitoring staff to take care of such issues, if any.

**(g) :** As on 1<sup>st</sup> August, 2017, EESL has distributed over 25.28 crore LED bulbs in 36 States and UTs across India. This alone has resulted in estimated energy savings of more than 32.84 billion kWh per year with avoided peak demand of 6575 MW and GHG emission reduction of 26.60 Million tonnes CO<sub>2</sub> per year. In addition, there are savings due to sale of LED bulbs by the private sector.

The State/UT-wise estimated energy savings is given at Annexure-I.

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**ANNEXURE-I****ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (g) OF UNSTARRED QUESTION NO. 3173 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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<b>Sl. No.</b>	<b>States/UTs</b>	<b>No. of LED bulbs distributed</b>	<b>Estimated Energy Saved per year(MUs)</b>	<b>Estimated avoided peak demand(MW)</b>
1	Andaman Nicobar	4,00,000	52.00	10.39
2	Andhra Pradesh	2,16,77,316	2,818.02	563.04
3	Arunachal Pradesh	8,985	0.41	0.08
4	Assam	15,31,046	199.04	39.77
5	Bihar	1,39,36,861	1,806.39	360.92
6	Chandigarh	2,35,859	30.66	6.13
7	Chhattisgarh	84,60,396	1,089.87	217.76
8	Dadra & Nagar Haveli	1,35,667	17.64	3.52
9	Daman & Diu	1,35,924	17.67	3.53
10	Delhi	1,16,15,917	1,507.74	301.25
11	Goa	8,20,333	106.64	21.31
12	Gujarat	3,59,88,490	4,671.01	933.27
13	Haryana	1,26,63,682	1,639.07	327.49
14	Himachal Pradesh	76,27,735	991.61	198.12
15	Jammu and Kashmir	76,89,954	999.69	199.74
16	Jharkhand	1,01,88,680	1,324.11	264.56
17	Karnataka	1,65,04,010	2,138.93	427.36
18	Kerala	1,01,19,390	1,315.52	262.84
19	Lakshadweep	1,00,000	13.00	2.60
20	Madhya Pradesh	1,40,20,204	1,814.84	362.61
21	Maharashtra	2,12,92,816	2,768.07	553.06
22	Manipur	19,965	2.60	0.52
23	Meghalaya	2,48,608	31.71	6.34
24	Mizoram	5,28,624	68.25	13.64
25	Nagaland	4,59,769	59.77	11.94
26	Odisha	1,07,68,272	1,395.46	278.81
27	Puducherry	6,09,251	79.20	15.82
28	Punjab	1,18,191	14.91	2.98
29	Rajasthan	1,36,22,341	1,768.22	353.29
30	Sikkim	1,05,148	13.67	2.73
31	Tamil Nadu	4,97,119	61.81	12.35
32	Telangana	13,40,472	172.89	34.54
33	Tripura	5,71,570	74.30	14.85
34	Uttar Pradesh	1,96,68,086	2,543.85	508.26
35	Uttarakhand	38,61,511	499.79	99.86
36	West Bengal	52,88,707	678.43	135.55
	<b>Total</b>	<b>25,28,60,899</b>	<b>32,846.78</b>	<b>6,575.81</b>

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**ANNEXURE REFERRED TO IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 3173 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**A. List of companies which are distributing LED bulbs in Uttar Pradesh.**

<b>Sl. No.</b>	<b>Distribution Agency/DISCOM for Uttar Pradesh</b>
<b>1</b>	<b>Alankit Ltd.</b>
<b>2</b>	<b>Amar Construction</b>
<b>3</b>	<b>Community Works Welfare Society</b>
<b>4</b>	<b>Medas Consultancy Services Limited</b>
<b>5</b>	<b>RBS Multisolution Pvt. Ltd.</b>
<b>6</b>	<b>Zephyr Limited</b>
<b>7</b>	<b>MadhyanchalVidyutVitaran Nigam Ltd.(MVVNL)</b>
<b>8</b>	<b>Kanpur Electric Supply Co. Ltd. (KESCO)</b>
<b>9</b>	<b>PaschimanchalVidyutVitaran Nigam Ltd.(PAVVNL)</b>
<b>10</b>	<b>DakshinanchalVidyutVitaran Nigam Ltd.(DVVNL)</b>
<b>11</b>	<b>PurvanchalVidyutVitaran Nigam Ltd.(PUVVNL)</b>

**B. Number of LED distribution centres District-wise in the State of Uttar Pradesh**

<b>Sl. No.</b>	<b>District/zone</b>	<b>No. of distribution centre</b>
<b>1</b>	<b>Agra zone</b>	<b>5</b>
<b>2</b>	<b>Aligarh</b>	<b>11</b>
<b>3</b>	<b>Allahabad zone</b>	<b>11</b>
<b>4</b>	<b>Amethi</b>	<b>5</b>
<b>5</b>	<b>Amroha (J P Nagar)</b>	<b>7</b>
<b>6</b>	<b>Auraiya</b>	<b>6</b>
<b>7</b>	<b>Azamgarh</b>	<b>5</b>
<b>8</b>	<b>Badaun</b>	<b>5</b>
<b>9</b>	<b>Bagpat</b>	<b>11</b>
<b>10</b>	<b>Ballia</b>	<b>5</b>
<b>11</b>	<b>Banda</b>	<b>5</b>
<b>12</b>	<b>Barabanki</b>	<b>1</b>
<b>13</b>	<b>Basti zone</b>	<b>5</b>
<b>14</b>	<b>Bijnor</b>	<b>7</b>
<b>15</b>	<b>Bulandshahar</b>	<b>6</b>
<b>16</b>	<b>Chandauli</b>	<b>3</b>
<b>17</b>	<b>Chitrakoot</b>	<b>3</b>
<b>18</b>	<b>Deoria</b>	<b>3</b>
<b>19</b>	<b>Etah</b>	<b>3</b>
<b>20</b>	<b>Etawah</b>	<b>6</b>
<b>21</b>	<b>Faizabad</b>	<b>5</b>
<b>22</b>	<b>Farrukhabad</b>	<b>5</b>
<b>23</b>	<b>Fatehpur</b>	<b>4</b>

<b>S. No.</b>	<b>District/zone</b>	<b>No. of distribution centre</b>
24	Ghaziabad	20
25	Ghazipur	3
26	Gorakhpur zone	5
27	Hamirpur	2
28	Hapur	2
29	Hardoi	3
30	Hathras	2
31	Jalaun	3
32	Jaunpur	3
33	Jhansi	6
34	Kannauj	5
35	Kanpur	51
36	Kanpur dehat	5
37	Kasganj	3
38	Kausambhi	3
39	Kushinagar	8
40	Lakhimpur	2
41	Lalitpur	3
42	Lucknow	63
43	Maharajganj	9
44	Mahoba	4
45	Mainpuri	6
46	Mathura	5
47	Mau	4
48	Meerut	10
49	Mirzapur	5
50	Moradabad	6
51	Muzaffarnagar	4
52	Noida	3
53	Pilibhit	6
54	Pratapgarh	4
55	Rampur	4
56	Saharanpur	5
57	Sambhal	13
58	Santkabinagar	3
59	Santravidasnagar(Bhadoi)	2
60	Shahjahanpur	15
61	Shamli	3
62	Siddharthnagar	3
63	Sitapur	2
64	Sonbhadra	2
65	Sultanpur	5
66	Unnao	2
67	Varanasi	11

**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3178  
ANSWERED ON 03.08.2017**

**ULTRA MEGA POWER PROJECTS**

**†3178. SHRI JAGDAMBIKA PAL:**

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

- (a) the present status of Ultra Mega Power Projects (UMPPs) in the country and the quantum of electricity generated / likely to be generated therefrom, Project-wise;**
- (b) the details of norms prescribed by the Government to allot electricity generated by UMPPs to various States; and**
- (c) whether any Memorandum of Understanding (MoU) has been signed with the States for this purpose 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) : Four UMPPs, viz, Sasan in Madhya Pradesh, Mundra in Gujarat, Krishnapatnam in Andhra Pradesh and Tilaiya in Jharkhand have been awarded to the successful bidders so far. Mundra and Sasan UMPP have been fully commissioned. The status of awarded UMPPs is furnished at Annex-I. Quantum of power generation by commissioned UMPPs is furnished at Annex-II.**

**(b) : The allocation of Power from UMPPs is decided by the Central Government in consultation with the States Governments. Up to 50% power is allocated to lead procurer i.e. the state in which UMPP is located. Further, power allocation is based on location of project in particular region, power deficit, availability of transmission infrastructure and equity contribution in Special Purpose Vehicle (SPV), proportionate to power allocation to that particular state etc.**

**(c) : No, Madam.**

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**ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3178 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**STATUS OF AWARDED ULTRA MEGA POWER PROJECTS**

<b>Sl. No</b>	<b>Name of UMPP</b>	<b>Location</b>	<b>Status</b>
<b>1</b>	<b>Sasan UMPP (6x660 MW)</b>	<b>Sasan in District Singrauli. Madhya Pradesh</b>	<b>Project awarded and transferred to M/s. Reliance Power Ltd. on 07.08.2007. Project is fully commissioned.</b>
<b>2</b>	<b>Mundra UMPP (5x800 MW)</b>	<b>Mundra in village Tundawand in District Kutch, Gujarat</b>	<b>Project awarded and transferred to M/s. Tata Power Ltd. on 24.04.2007. Project is fully commissioned.</b>
<b>3</b>	<b>Krishnapatnam UMPP (6x660 MW)</b>	<b>Krishnapatnam in District Nellore, Andhra Pradesh</b>	<b>The Project awarded and transferred to M/s. Reliance Power Ltd. on 29.01.2008. The developer has stopped work at site, citing new regulation of coal pricing in Indonesia. The procurers have issued termination notice. The matter is subjudice.</b>
<b>4</b>	<b>Tilaiya UMPP (6x660 MW)</b>	<b>Near Tilaiya village in Hazaribagh and Koderma Districts, Jharkhand</b>	<b>Project awarded and transferred to M/s Reliance Power Ltd on 07.08.2009. The developer (Jharkhand Integrated Power Ltd) has issued notice of termination of Power Purchase Agreement on 28.4.2015.</b>

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**ANNEX-II****ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 3178 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**Quantum of power generation by commissioned UMPPs**

Name of the UMPP	Monitored Capacity as on 31.07.2015 MW	Generation in Million Units (MUs)						
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18 (April – June)
Mundra UMPP	4000	179.86	12440.39	23927.8	26577.6	25679.75	27460.24	5310.5
Sasan UMPP	3960	-	-	2938.95	17273.83	31262.34	29414.72	7530.59

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3185  
ANSWERED ON 03.08.2017**

**UDAY**

**3185. DR. SHRIKANT EKNATH SHINDE:  
SHRI VINAYAK BHAURAO RAUT:  
SHRI NAGENDRA KUMAR PRADHAN:**

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

- (a) whether the Ujwal Discom Assurance Yojana is being implemented for State discoms;**
- (b) if so, the details thereof and the salient features thereof;**
- (c) whether the scheme has set the year wise targets for reduction in AT&C losses as well as reduction in ACS-ARR gap;**
- (d) if so, the details thereof; and**
- (e) the State-wise details of reduction in AT&C losses and ACS-ARR gap since the launch of this scheme?**

**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) : The Government has launched the scheme Ujjwal DISCOM Assurance Yojana (UDAY) on 20-11-2015 to improve financial and operational efficiencies of state owned Power Distribution Companies (DISCOMs). The scheme is optional for the States to join. UDAY aims to reduce the burden of interest, cost of power and Aggregate Technical & Commercial (AT&C) losses. The scheme also seeks to reduce the gap between Average Cost of Supply (ACS) and Average Revenue Realized (ARR) to zero as per defined trajectories.**

**.....2.**

**So far, Twenty Six (26) States and one (01) UT namely Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand and Puducherry have signed the Memorandum of Understanding (MoU) with the Ministry of Power (MoP) under UDAY.**

**(c) & (d) : All the States/UT, who have signed MoUs under UDAY, have undertaken to reduce the ACS-ARR gap and AT&C losses as per agreed trajectories. Details are given at Annexure-I & II respectively.**

**(e) : The performance of the operational parameters i.e. Aggregate Technical & Commercial (AT&C) losses and Average Cost of Supply- Average Revenue Realized (ACS-ARR) Gap achieved under UDAY as updated by participating states are given at Annexure-III & IV respectively.**

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## ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO. 3185 ANSWERED IN THE LOK SABHA ON 03.08.2017.

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**ACS-ARR GAP TO BE REDUCED AS PER THE AGREED TRAJECTORY IN THE MoU**

Sl. NO.	STATE	DISCOM	FY15	FY16	FY17	FY18	FY19	FY20
1.	Rajasthan	AJMER (AVVNL)		2.35	0.39	-0.15	-0.15	
		JODHPUR (JVVNL)		1.98	0.32	-0.11	-0.11	
		JAIPUR (JVVNL)		2.04	0.53	-0.11	-0.11	
2.	Uttar Pradesh	ALL DISCOMs		1.76	1.04	0.60	0.22	-0.06
3.	Bihar	NORTH BIHAR (NBPDCCL)		1.79	1.25	0.80	0.48	-0.07
		SOUTH BIHAR (SBPDCL)		2.00	1.39	0.85	0.34	-0.24
4.	Jammu & Kashmir			2.41	0.68	0.71	0.49	-0.09
5.	Haryana	UHBVNL/DHBVNL		0.81	0.83	0.51	0.12	-0.02
6.	Jharkhand	JBVNL		3.16	1.99	0.99	0.00	
7.	Uttarakhand	UPCL		0.07	0.04	-0.01	-0.03	
8.	Punjab	PSPCL		0.43	0.37	0.04	-0.09	
9.	Gujarat	All DISCOMs		-0.03	-0.04	-0.04	-0.06	
10.	Chhattisgarh	CSPDCL		0.35	-1.21	-0.34	-0.52	
11.	Andhra Pradesh	APEPDCL		0.31	0.10	0.01	-0.02	
		APSPDCL		0.53	0.28	0.00	-0.03	
12.	Goa	Goa-ED			0.75	0.20	-0.15	
13.	Karnataka	All DISCOMs(Combined)		0.10	0.00	-0.01	-0.00	
14.	Manipur	MSPDCL			1.68	0.64	-0.36	
15.	Madhya Pradesh	All DISCOMs (combined)		0.65	0.34	0.16	0.03	-0.10
16.	Puducherry	Puducherry-ED		0.00	0.00	0.00	0.00	
17.	Maharashtra	MSEDCL		0.50	0.36	0.01	-0.39	
18.	Sikkim			2.58	0.70	0.39	-0.09	
19.	Meghalaya				0.83	0.61	0.35	-0.01
20.	Tripura				0.05	0.04	0.03	-0.01
21.	Arunachal Pradesh			0.00	0.00	0.00	0.00	0.00
22.	Mizoram			0.00	0.00	0.00	0.00	0.00
23.	Kerala			0.16	0.26	-0.04	-0.06	
24.	Tamil Nadu			0.60	0.20	0.05	-0.07	
25.	Assam			0.66	0.43	0.19	-0.05	
26.	Himachal Pradesh			0.09	-0.04	-0.05	-0.05	
27.	Telangana	All DISCOMs(combined)			0.87	0.40	0.00	

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**ANNEXURE-II**

**ANNEXURE REFERRED TO IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO. 3185 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**AT&C LOSSES TO BE REDUCED AS PER THE AGREED TRAJECTORY IN THE MoU**

Sl. No.	State	DISCOM	FY15	FY16	FY17	FY18	FY19	FY20
1.	Rajasthan	AJMER (AVVNL)		24.00%	20.00%	17.5%	15.00%	
		JODHPUR (JVVNL)		22.4%	18.00%	16.5%	15.00%	
		JAIPUR (JVVNL)		27.50%	22.00%	18.5%	15.00%	
2.	Uttar Pradesh	All DISCOMs		32.36%	28.27%	23.63%	19.36%	14.86%
3.	Bihar	NORTH BIHAR (NBPDC)		40.00%	34.00%	28.00%	20.00%	15.00%
		SOUTH BIHAR (SBPDCL)		44.00%	38.00%	30.00%	22.00%	15.00%
4.	Jammu & Kashmir			56.00%	46.00%	35.00%	25.00%	15.00%
5.	Haryana	UHBVNL/DHBVNL		28.05%	24.02%	20.04%	15.00%	
6.	Jharkhand	JBVNL		35.00%	28.00%	22.00%	15.00%	
7.	Uttarakhand	UPCL		17.00%	16.00%	15.00%	14.50%	
8.	Punjab	PSPCL		16.16%	15.30%	14.50%	14.00%	
9.	Gujarat	All DISCOMs (combined)		14.50%	14.00%	13.50%	13.00%	
10.	Chhattisgarh	CSPDCL		21.00%	18.93%	18.00%	15.00%	
11.	Andhra Pradesh	APEPDCL			5.46%	5.45%	5.44%	
		APSPDCL			11.29%	11.09%	10.89%	
12.	Goa	Goa-ED		21.06%	18.75%	16.59%	15.00%	
13.	Karnataka	All DISCOMs (combined)		15.37%	15.50%	15.00%	14.02%	
14.	Manipur	MSPDCL		44.20%	25.15%	18.70%	15.00%	
15.	Madhya Pradesh	All DISCOMs (combined)		26.27%	21.15%	19.15%	17.00%	15.00%
16.	Puducherry	Puducherry-ED		19.88%	19.00%	15.00%	12.00%	
17.	Maharashtra	MSEDCL		17.31%	16.74%	15.61%	14.39%	
18.	Sikkim			37.13%	29.50%	25.94%	15.00%	
19.	Meghalaya			36.50%	32.51%	27.50%	21.50%	15.00%
20.	Tripura			33.80%	30.00%	25.00%	20.00%	15.00%
21.	Arunachal Pradesh			57.74%	52.41%	43.00%	39.00%	25.00%
22.	Mizoram			32.17%	27.38%	23.76%	20.30%	15.00%
23.	Kerala			11.57%	11.45%	11.23%	11.00%	
24.	Tamil Nadu			14.58%	14.06%	13.79%	13.50%	
25.	Assam			22.49%	19.00%	17.75%	16.10%	15.00%
26.	Himachal Pradesh			13.85%	13.50%	13.00%	12.75%	
27.	Telangana	TSSPDCL			12.68%	11.30%	9.90%	
		TSNPDC			11.90%	10.95%	10.00%	

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**ANNEXURE-III**

**ANNEXURE REFERRED TO IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 3185 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**AT&C Loss**

Sl. No.	Parameter	Unit	FY 2015-16	FY 2016-17		Reduction in AT&C Loss over previous year
				Target	Achievement	
	<b>All India Basis</b>	<b>(In %)</b>	<b>21.14</b>	<b>18.66</b>	<b>20.07</b>	<b>1.07</b>
<b>1</b>	<b>Himachal Pradesh</b>	<b>(In %)</b>	<b>12.92</b>	<b>13.25</b>	<b>4.15</b>	<b>8.77</b>
<b>2</b>	<b>Manipur</b>	<b>(In %)</b>	<b>44.21</b>	<b>28.89</b>	<b>36.89</b>	<b>7.32</b>
<b>3</b>	<b>Jharkhand</b>	<b>(In %)</b>	<b>34.71</b>	<b>28.38</b>	<b>29.90</b>	<b>4.81</b>
<b>4</b>	<b>Tripura</b>	<b>(In %)</b>	<b>20.94</b>	<b>30.00</b>	<b>16.61</b>	<b>4.33</b>
<b>5</b>	<b>Haryana</b>	<b>(In %)</b>	<b>29.83</b>	<b>24.03</b>	<b>25.69</b>	<b>4.14</b>
<b>6</b>	<b>Rajasthan</b>	<b>(In %)</b>	<b>27.27</b>	<b>23.09</b>	<b>23.81</b>	<b>3.46</b>
<b>7</b>	<b>Gujarat</b>	<b>(In %)</b>	<b>15.04</b>	<b>14.06</b>	<b>12.28</b>	<b>2.76</b>
<b>8</b>	<b>Uttarakhand</b>	<b>(In %)</b>	<b>17.19</b>	<b>15.99</b>	<b>14.50</b>	<b>2.69</b>
<b>9</b>	<b>Chhattisgarh</b>	<b>(In %)</b>	<b>21.79</b>	<b>18.93</b>	<b>19.34</b>	<b>2.45</b>
<b>10</b>	<b>Bihar</b>	<b>(In %)</b>	<b>43.74</b>	<b>36.42</b>	<b>41.75</b>	<b>1.99</b>
<b>11</b>	<b>Meghalaya</b>	<b>(In %)</b>	<b>36.48</b>	<b>32.51</b>	<b>34.87</b>	<b>1.61</b>
<b>12</b>	<b>Puducherry</b>	<b>(In %)</b>	<b>19.88</b>	<b>19.00</b>	<b>18.98</b>	<b>0.90</b>
<b>13</b>	<b>Maharashtra</b>	<b>(In %)</b>	<b>19.07</b>	<b>16.74</b>	<b>18.30</b>	<b>0.77</b>
<b>14</b>	<b>Goa</b>	<b>(In %)</b>	<b>17.12</b>	<b>14.49</b>	<b>16.79</b>	<b>0.33</b>
<b>15</b>	<b>Jammu &amp; Kashmir</b>	<b>(In %)</b>	<b>61.6</b>	<b>46.00</b>	<b>61.34</b>	<b>0.26</b>
<b>16</b>	<b>Tamil Nadu</b>	<b>(In %)</b>	<b>14.38</b>	<b>14.02</b>	<b>14.53</b>	<b>-0.15</b>
<b>17</b>	<b>Telangana</b>	<b>(In %)</b>	<b>14.02</b>	<b>11.93</b>	<b>14.20</b>	<b>-0.18</b>
<b>18</b>	<b>Karnataka</b>	<b>(In %)</b>	<b>14.94</b>	<b>15.43</b>	<b>15.15</b>	<b>-0.21</b>
<b>19</b>	<b>Madhya Pradesh</b>	<b>(In %)</b>	<b>23.97</b>	<b>20.76</b>	<b>25.16</b>	<b>-1.19</b>
<b>20</b>	<b>Kerala</b>	<b>(In %)</b>	<b>16.03</b>	<b>11.57</b>	<b>17.28</b>	<b>-1.25</b>
<b>21</b>	<b>Andhra Pradesh</b>	<b>(In %)</b>	<b>9.41</b>	<b>9.26</b>	<b>10.96</b>	<b>-1.55</b>
<b>22</b>	<b>Punjab</b>	<b>(In %)</b>	<b>15.95</b>	<b>15.30</b>	<b>17.57</b>	<b>-1.62</b>
<b>23</b>	<b>Assam</b>	<b>(In %)</b>	<b>22.12</b>	<b>19.00</b>	<b>25.09</b>	<b>-2.97</b>
<b>24</b>	<b>Uttar Pradesh</b>	<b>(In %)</b>	<b>26.47</b>	<b>28.08</b>	<b>30.21</b>	<b>-3.74</b>

**Depicts the data of 24 states only on UDAY portal. Three states joined in February/March 17 are yet to submit the performance data.**

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**ANNEXURE-IV**

**ANNEXURE REFERRED TO IN REPLY TO PART (e) OF UNSTARRED QUESTION NO. 3185 ANSWERED IN THE LOK SABHA ON 03.08.2017.**

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**ACS-ARR GAP**

Sl. No.	Parameter	Unit	FY 2015-16	FY 2016-17		Reduction in ACS-ARR gap over previous year
				Target	Achievement	
	<b>All India Basis</b>	<b>(In Rs./unit)</b>	<b>0.6</b>	<b>0.38</b>	<b>0.47</b>	<b>0.13</b>
1	Manipur	(In Rs./unit)	1.31	0	0.1	1.21
2	Rajasthan	(In Rs./unit)	1.68	0.41	0.74	0.94
3	Goa	(In Rs./unit)	1.50	0.68	0.95	0.55
4	Jammu & Kashmir	(In Rs./unit)	2.55	0.68	2.15	0.40
5	Chhattisgarh	(In Rs./unit)	0.18	-1.21	-0.15	0.33
6	Himachal Pradesh	(In Rs./unit)	0.01	-0.04	-0.26	0.27
7	Tamil Nadu	(In Rs./unit)	0.60	0.20	0.36	0.24
8	Tripura	(In Rs./unit)	0.24	0.05	0.02	0.22
9	Andhra Pradesh	(In Rs./unit)	0.82	0.21	0.6	0.22
10	Uttar Pradesh	(In Rs./unit)	0.88	0.94	0.66	0.22
11	Telangana	(In Rs./unit)	0.75	0.82	0.64	0.11
12	Haryana	(In Rs./unit)	0.18	0.83	0.08	0.10
13	Madhya Pradesh	(In Rs./unit)	0.92	0.34	0.86	0.06
14	Maharashtra	(In Rs./unit)	0.24	0.30	0.22	0.02
15	Gujarat	(In Rs./unit)	-0.02	-0.02	-0.03	0.01
16	Puducherry	(In Rs./unit)	0.03	0.19	0.07	-0.04
17	Uttarakhand	(In Rs./unit)	0.10	0.03	0.14	-0.04
18	Bihar	(In Rs./unit)	0.65	1.32	0.71	-0.06
19	Meghalaya	(In Rs./unit)	1.71	0.83	1.81	-0.10
20	Punjab	(In Rs./unit)	0.60	0.02	0.71	-0.11
21	Assam	(In Rs./unit)	0.48	0.66	0.65	-0.17
22	Jharkhand	(In Rs./unit)	1.22	1.63	1.48	-0.26
23	Karnataka	(In Rs./unit)	0.06	0.56	0.35	-0.29
24	Kerala	(In Rs./unit)	0.23	-0.26	0.53	-0.30

**Depicts the data of 24 states only on UDAY portal. Three states joined in February/March 17 are yet to submit the performance data.**

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER  
LOK SABHA  
UNSTARRED QUESTION NO.3193  
ANSWERED ON 03.08.2017  
NATIONAL ENERGY POLICY**

**3193. SHRI NINONG ERING:  
SHRI JYOTIRADITYA M. SCINDIA:**

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

- (a) whether the NITI Aayog in its draft National Energy Policy has stressed the need to invest \$150 billion capital in the energy sector;**
- (b) if so, the details thereof;**
- (c) whether several thermal power projects which are under construction have been stalled due to capital crunch;**
- (d) if so, the details thereof; and**
- (e) the steps proposed to be taken by the Union Government to meet the challenge of capital crunch in the energy sector?**

**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) : NITI Aayog in the draft National Energy Policy has indicated that “Capital requirement in the energy domain is the biggest challenge before the country. This is aggravated by high interest rates as compared to developed economies. A near \$150 billion capital investment is needed in energy sector on an annual basis until 2040 (International Energy Agency). This has to be met without impacting availability of capital in other sectors”.**

**(c) to (e) : 17 number of under construction coal based thermal power projects aggregating to a capacity of 18,420 MW are stalled due to financial issues. The measures taken by the Government to address the financial issues in the power sector are as follows:**

- (i) Ujwal DISCOM Assurance Yojana (UDAY) scheme for Financial and Operation Turn-around of power distribution utilities (DISCOMs) of the country.**
- (ii) RBI has notified schemes such as (i) Scheme for Sustainable Structuring of Stressed Assets (S4A) and (ii) Strategic Debt Restructuring Scheme (SDR) for the revival of stressed assets.**
- (iii) Due diligence and financial restructuring done by Banks to make projects viable would attract new promoters or states to bring in fresh equity investments.**

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3200  
ANSWERED ON 03.08.2017**

**POLLUTION NORMS FOR THERMAL POWER STATIONS**

**†3200. SHRI LALLU SINGH:**

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

- (a) whether Central Electricity Authority proposes to implement improved pollution norms in thermal power generation projects of the country from the year 2020 instead of 2017;**
- (b) if so, the facts in this regard and the details of the proposals made by the above mentioned Authority; and**
- (c) the reasons for changing earlier decision 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) to (c) : Many of the existing thermal power plants are not in a position to put in place the required technology by 7<sup>th</sup> December 2017 due to following reasons:**

- (i) Time is required for Design and Engineering, approvals, arrangement of funds, tendering and erection, testing and commissioning. Implementation period of 24-36 months for installation of pollution control equipment is required by each unit.**
- (ii) All the plants/units cannot be shut down simultaneously. Therefore, planned shut-down is required to ensure uninterrupted power supply in the country.**
- (iii) To fully meet the Nitrogen Oxides (NO<sub>x</sub>) emission norms notified by Ministry of Environment, Forests & Climate Change (MoEF&CC), Selective Catalytic Reduction (SCR) or Selective Non-Catalytic Reduction (SNCR) system needs to be installed in some units. These technologies are not yet fully proved under indigenous conditions with high ash coal.**

**In view of the above, Central Electricity Authority (CEA) was entrusted with the responsibility of preparing a plan for implementation of new environmental norms issued by Ministry of Environment, Forests & Climate Change (MoEF&CC) in December 2015, keeping in view the power demand-supply position, time required to install pollution control equipments and available technological options. After consultation with Regional Power Committees and power utilities from Central/State/Independent Power Plants, an implementation plan for installation/upgradation of pollution control equipments in coal based thermal plants has been prepared.**

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3204  
ANSWERED ON 03.08.2017**

**COMPENSATION TO DISPLACED PERSONS**

**3204. SHRI RAYAPATI SAMBASIVA RAO:**

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

- (a) whether there is any policy in regard to paying compensation to displaced/affected persons when a project under the Ministry comes up;**
- (b) if so, the details thereof;**
- (c) if not, the reasons therefor;**
- (d) the quantum of compensation paid to the displaced/affected persons due to a project by NTPC, PGCIL; and**
- (e) whether any cases of compensation to displaced /affected persons are pending, if so, the details thereof and 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) & (e) : Yes, Madam. Land acquisition for projects set up by PSUs under Ministry of Power is done as per the provisions of Government of India (GOI) Land Acquisition Act-1894/ Special Acts of respective States, National Policy on Resettlement and Rehabilitation for Project Affected Families – 2003 (NPRR-2003), the National Rehabilitation and Resettlement Policy, 2007 (NRRP-2007) and the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR Act – 2013).**

**The land rates/compensation are decided by the concerned State Government/State Authority as per provisions of the prevailing Land Acquisition Act of Government of India / respective State Government.**

**NTPC has paid compensation of Rs.1763.28 crore for private land acquisition in respect of their 12 under construction projects. PGCIL has paid compensation of Rs.874.90 Crore for land acquisition in respect of their 69 projects since 2007.**

**As of now, total amount as demanded by State Administration has been deposited by NTPC and PGCIL and no case of compensation to displaced/affected persons are pending.**

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**GOVERNMENT OF INDIA  
MINISTRY OF POWER**

**LOK SABHA  
UNSTARRED QUESTION NO.3211  
ANSWERED ON 03.08.2017**

**LED STREET LIGHTS IN GRAM PANCHAYATS**

**3211. SHRI SATAV RAJEEV:  
SHRI DHANANJAY MAHADIK:  
SHRIMATI SUPRIYA SULE:  
DR. J. JAYAVARDHAN:  
SHRI P.R. SUNDARAM:**

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

- (a) whether the Government is implementing any scheme to promote the use of LED lights in place of conventional street lights in gram panchayats;**
- (b) if so, objectives and details of the scheme;**
- (c) the difficulties/challenges being faced by the Government in the implementation of the scheme;**
- (d) the steps taken by the Government to overcome such difficulties;**
- (e) whether there is any improvement in the related indices after the implementation of the scheme, if so, the details thereof including the State-wise distribution of the related indices; and**
- (f) whether the Government is undertaking any other policies for promoting the retrofitting of conventional street lights with LED lights in gram panchayats, 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) : The Hon'ble Prime Minister, on 5<sup>th</sup> January 2015, launched Street Lighting National Programme (SLNP) to replace conventional street lights with smart and energy efficient LED street lights by March 2019. The programme is being implemented by Energy Efficiency Services Limited (EESL), a joint venture company of Public Sector Undertakings (PSUs), under Ministry of Power. 554 Urban Local Bodies (ULBs) have been enrolled by EESL for implementation of SLNP.**

**Based on the experience gained in implementation of SLNP, EESL has entered into a Tripartite Agreement with Department of Panchayat Raj and Rural Development, Government of Andhra Pradesh and Andhra Pradesh State Energy Efficiency Development Corporation to replace 10 lakh conventional street lights with LED street lights in Gram Panchayats of 7 districts (Guntur, Prakasam, Nellore, Kurnool, Kadapa, Anantapur and Chittoor) in Andhra Pradesh.**

**The objectives of the scheme are to promote the use of efficient lighting in rural areas to reduce energy consumption and to improve security and safety with better lighting.**

**(c) & (d) : No significant difficulties/challenges are being faced in implementation of SLNP.**

**(e) : The replacement of 10 lakh conventional street lights with LED street lights in Gram Panchayats of 7 districts in Andhra Pradesh will result in an estimated energy savings of 147 million units and reduction in Green House Gas (GHG) emission of 120 million tonnes of CO<sub>2</sub>.**

**(f) : Ministry of Panchayati Raj, Government of India has requested the States to issue instructions to make LED based lighting mandatory in the buildings of Gram Panchayats and affiliated offices and all community lighting projects funded by Government /Panchayats.**

**Further, the Ministry of Power has also requested all State Governments as well as all Ministries/Departments of the Central Government to issue necessary instructions to make the installation of LED based lighting mandatory in all Government buildings as well as in all community lighting projects funded by the Government.**

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