GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.24
ANSWERED ON 25.02.2016

RENOVATION AND MODERNISATION OF THERMAL PLANTS

***24. SHRI ASHOK SHANKARRAO CHAVAN:**
KUNWAR HARIBANSH SINGH:

Will the Minister of POWER
be pleased to state:

(a) the number of thermal power plants in the country along with their capacity, sector-wise and fuel-wise;

(b) whether certain thermal power plants have been recommended for closure/renovation by the Central Electricity Authority (CEA) units as these are more than 25 years old, if so, the details thereof;

(c) whether the Government proposes to undertake renovation and modernization of old thermal plants, if so, the status thereof along with the norms laid down in this regard;

(d) the total funds estimated to replace the old and inefficient thermal units along with the funds provided for the purpose; and

(e) the steps taken/being taken by the Government to refurbish/modernise/ renovate old and inefficient thermal plants?

A N S W E R

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

(SHRI PIYUSH GOYAL)

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

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STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF STARRED QUESTION NO. 24 ANSWERED IN THE LOK SABHA ON 25.02.2016 REGARDING RENOVATION AND MODERNISATION OF THERMAL PLANTS.

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(a) : Details of thermal power plants in the country along with their capacity, sector-wise and fuel-wise as on 31.01.2016 is as under:

Sector	No. of Plants/(Capacity in MW)					Total (No. of Plants/ Capacity)
	Coal (No. of Plants/ Capacity)	Lignite (No. of Plants/ Capacity)	Gas (No. of Plants/ Capacity)	Diesel (No. of Plants/ Capacity)	Multi-fuel (No. of Plants/ Capacity)	
State Sector	69/ 59070.50	3 / 790	34 / 6975.30	41/ 438.57	1 /60	148 / 67334.37
Central sector	31 /46740	7 /3240	14/ 7555.33	-	-	52 / 57535.33
Private Sector	79 / 63507.37	3 /1830	28 /9978	8 /554.96	-	118 / 75870.33
Total	179 / 169317.87	13 /5860	76 / 24508.63	49 / 993.53	1 / 60	318 / 200740.03

(b) & (c) : Decision to conduct Renovation and Modernisation (R&M) works and replacement are taken by the respective Utilities. R&M works of units of 13,044 MW capacity older than 25 years has started. In addition, as per assessment made by Central Electricity Authority (CEA) in Oct 2015, units of 5580 MW capacity which are older than 25 years has been identified for R&M / Life extension (LE). Further, 5860 MW capacity can be retired in due course of time in a phased manner. Retirement or R&M of units of 4800 MW capacity can be decided based on their viability.

The general norms laid down by CEA in the guideline for R&M / LE works (Oct, 2009) are as under:

- **Life Extension through comprehensive R&M focuses on plant operation beyond their original designed economic life of 25 years. Specific residual life assessment studies (RLA) of critical components may be carried out after about 20 years of life or *1,60,000* hours of operation for thermal power stations.**

- **The cost of Life Extension works shall not exceed 50% of the EPC cost of a new generating unit of indigenous origin (BHEL). If the LE works are limited to Boiler Turbine Generator (BTG), the cost ceiling shall be restricted to 50% of the cost of new BTG unit.**

.....2.

- **A detailed study should be carried out to ensure its techno-economic viability in terms of internal rate of return, payback period etc. The payback period may be limited to 5-7 years. In cases, where the cost is estimated to exceed the above limits, a detailed cost comparison & cost benefit analysis shall be carried out between the R&M/LE work and that of setting up a new green field plant.**

- **A total shut down period of unit for carrying out LE works should be 6-8 months.**

(d) : About 10,180 MW capacity based on Supercritical technology can be installed after replacement of old units of 5860 MW. The total estimated fund requirement is around Rs 70,000 crore. Funds are arranged by the respective Utilities for R&M and replacement of units.

(e) : To facilitate the implementation of R&M of Thermal Power Stations (TPSs), the following steps have been taken:

- **Studies have been taken up for addressing the barriers to R&M implementation under the "Coal-Fired Generation Rehabilitation Project-India".**

- **RLA reports / Detailed Project Reports (DPRs) of R&M projects are being prepared by the empanelled R&M consultants.**

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.29
ANSWERED ON 25.02.2016

POWER GENERATION CAPACITY

***29. SHRI RAM MOHAN NAIDU KINJARAPU:**

Will the Minister of POWER
be pleased to state:

(a) the total number of Centrally Generating Stations (CGSs) in the country and the installed capacity of all the Stations, State-wise including Andhra Pradesh;

(b) whether there is any provision of allocating a certain percentage of the power generated to the home State where the station is located, if so, the details thereof;

(c) whether the Government is planning to increase the number of CGSs across the country, if so, the details thereof; and

(d) the time by which CGSs are likely to be set up and the expenditure likely to be incurred thereon, State-wise?

A N S W E R

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

(SHRI PIYUSH GOYAL)

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

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STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF STARRED QUESTION NO. 29 ANSWERED IN THE LOK SABHA ON 25.02.2016 REGARDING POWER GENERATION CAPACITY.

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(a) : The total number of Central Generating Stations (CGSs) in the country is 92 with an installed capacity of 74806.75 MW. Details of Installed Capacity of Central Generating Station Station-wise, State/ Union Territory wise including Andhra Pradesh is given at **Annex-I.**

(b) : The details of provisions of allocating power to home states is given at **Annex-II.**

(c) & (d) : Yes, Madam. The state-wise details of under construction Central Generating Stations of 36496 MW comprising of 26381 MW of thermal, 6315 MW of Hydro and 3800 MW of Nuclear and the expenditure likely to be incurred thereon are given at **Annex-III.**

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ANNEX REFERRED TO IN PART (a) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 29 ANSWERED IN THE LOK SABHA ON 25.02.2016 REGARDING POWER GENERATION CAPACITY.

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State	Name of Project	Total Installed Capacity (MW)	State-wise total No. of stations
Delhi	Badarpur Thermal Power Station	705	
Delhi Total		705	1
Haryana	Faridabad CCGT	431.59	
	Indira Gandhi STPP	1500	
Haryana Total		1931.59	2
Himachal Pradesh	Baira Siul Hydro Power Station	180	
	Chamera Hydro Power Station-I	540	
	ChameraHydro Power Station -II	300	
	ChameraHydro Power Station -III	231	
	KOLDAM HEP	800	
	Nathpa Jhakri Hydro Power Station	1500	
	Parbati III	520	
	Rampur	412.02	
Himachal Pradesh Total		4483.02	8
Jammu & Kashmir	Chutak Hydro Power Station	44	
	Dulhasti Hydro Power Station	390	
	Nimoo Bazoo	45	
	Salal Hydro Power Station -II	345	
	Salal Hydro Power Station-I	345	
	Sewa II H E P	120	
	Uri Hydro Power Station	480	
	Uri-II Hydro Power Station	240	
Jammu & Kashmir Total		2009	8
Rajasthan	Anta CCPP	419.33	
	Rjasthan A P S	1180	
	Barsingsar Thermal Power Station	250	
Rajasthan Total		1849.33	3
Uttar Pradesh	Auriaya CCPP	663.36	
	Dadri CCPP	829.78	
	Narora A P S	440	
	National Capital Region Power Station	1820	
	Rihand Thermal Power Station	3000	
	Singrauli Thermal Power Station	2000	
	Tanda Thermal Power Station	440	
	Unchahar Thermal Power Station	1050	
Uttar Pradesh Total		10243.14	8
Uttarakhand	Dhauli Ganga Hydro Power Station	280	
	Koteshwar Hydro Power Station	400	
	Tanakpur Hydro Power Station	94.2	
	Tehri Hydro Power Station	1000	
Uttarakhand Total		1774.2	4
Northern Region		22995.28	34
Chhattisgarh	Bhilai Thermal Power Station	500	
	Korba Thermal Power Station	2600	
	Sipat Supper Thermal Power Station	2980	
Chhattisgarh Total		6080	3
Gujarat	Gandhar CCPP	657.39	
	Kawas Gas Power Station	656.2	
	Kakarapara A P S	440	
Gujarat Total		1753.59	3
Madhya Pradesh	Indira Sagar Hydro Power Station	1000	
	Omkreshwar Hydro Power Station	520	
	Vindhyachal Thermal Power Station	4760	
Madhya Pradesh Total		6280	3
Maharashtra	Ratnagiri Gas Power Station	2220	
	Tarapur A P S	1400	
	Mauda Thermal Power Station	1000	
Maharashtra Total		4620	3
Western Region		18733.59	12
Andhra Pradesh	Simadri Thermal Power Station	1000	
	Simadri Thermal Power Station	1000	
Andhra Pradesh Total		2000	2

Karnataka	Kaiga A P S	880	
Karnataka Total		880	1
Kerala	Rajiv Gandhi CCPP	359.58	
Kerala Total		359.58	1
Tamil Nadu	Kundankulam	1000	
	Madras A P S	440	
	Neyveli Thermal Power Station I	600	
	Neyveli Thermal Power Station II	1470	
	Neyveli Thermal Power Station Stage	250	
	Neyveli Thermal Power Station Stage-II	250	
	Neyveli Thermal Power Station(Ext)	210	
	Neyveli Thermal Power Station(Fst)	210	
	Tuticorin JV	1000	
	Vallur Thermal Power Station	1500	
Tamil Nadu Total		6930	10
Telangana	Ramagundm Thermal Power Station	2600	
Telangana Total		2600	1
Southern Region		12769.58	15
Bihar	BARH STPP ST II	1320	
	Kahalgaon Thermal Power Station	2340	
	Muzaffarpur Thermal Power Station	415	
Bihar Total		4075	3
Jharkhand	Maithon Gas Power Station	90	
	Maithon Hydro Power Station	63.2	
	Panchet Hill Hydro Power Station	80	
	Bokaro Thermal Power Station B	630	
	Chandrapur Thermal Power Station	890	
	Koderma Thermal Power Station	1000	
Jharkhand Total		2753.2	6
Odisha	Talchar Thermal Power Station(STPS)	3000	
	Talcher Thermal Power Station Old	460	
Odisha Total		3460	2
Sikkim	Rangit Hydro Power Station	60	
	Teesta Hydro Power Station	510	
Sikkim Total		570	2
West Bengal	Teesta Low Dam Hydro Power Station	132	
	Durgapur Steel Thermal Power Station	1000	
	Durgapur Thermal Power Station	340	
	Farakka Thermal Power Station	2100	
	Mejia Thermal Power Station	2340	
	Raghunathpur TPP, Ph 1	600	
	Raghunathpur TPP, Ph 2	600	
West Bengal Total		7112	7
Eastern Region		17970.2	20
Arunachal Pradesh	Ranganadi Hydro Power Station	405	
Arunachal Pradesh Total		405	1
ASSAM	Kathalguri CCPP	291	
	Kopili Hydro Power Station Extn.	200	
	Bongaigaon	250	
ASSAM Total		741	3
Manipur	Loktak Hydro Power Station	105	
Manipur Total		105	1
Meghalaya	Khandong Hydro Power Station	75	
Meghalaya Total		75	1
Nagaland	Doyang Hydro Power Station	75	
Nagaland Total		75	1
Tripura	Agartala CCPP ST-I	25.5	
	Agartala Gas Power Station	84	
	Monarchak CCPP	65.4	
	Tripura CCGT	762.2	
Tripura Total		937.1	4
NE Region		2338.1	11
Grand Total		74806.75	92

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ANNEX-II

ANNEX REFERRED TO IN PART (b) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 29 ANSWERED IN THE LOK SABHA ON 25.02.2016 REGARDING POWER GENERATION CAPACITY.

****

Power from Central Generating Stations (CGS) to beneficiary States/Union Territories (UTs) is allocated in accordance with formula for allocation of power which is being treated as guidelines from April, 2000. As per these guidelines, allocation of power is made to the States/ UTs in two parts, namely firm allocation of 85% and unallocated power of 15% for allocation by the Government for meeting the urgent/overall requirement.

The firm allocation includes allocation of 12% free power to the affected States and 1% for local area development in case of Hydro Power Stations and 10% (paid) power to the home State in case of Thermal and Nuclear Power Stations.

The balance (72% in case of Hydro and 75% in case of Thermal & Nuclear) power is distributed amongst the States / UTs of the region in accordance with the pattern of central plan assistance and energy consumption during the previous five years, both factors having equal weightage. Central plan assistance is determined in accordance with the Gadgil formula, in which population of the States is also taken into consideration. In case of joint venture projects, the equity contributing State gets benefit in firm allocation in accordance with their equity contribution.

The aforementioned guidelines for allocation of power from CGS are applicable to the generating stations, for which Power Purchase Agreements (PPAs) have been signed upto 5th January, 2011 and for the extension of the existing projects. After 5th January, 2011, power is to be procured by the Distribution Companies / Utilities through tariff based competitive bidding. In 14 new projects of NTPC, Central Government has, in January, 2011, approved allocation of 50% of power to 'Home' State, 15% unallocated power at the disposal of Government of India and 35% to other constituents (except 'Home' State) of that region on the basis of extant guidelines on allocation of power giving equal weightage to central plan assistance and energy consumption by each State of the Region for the preceding 5 years. Similar dispensation has also been provided by the Government in January, 2011 in respect of new projects of Nuclear Power Corporation.

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ANNEX-III

ANNEX REFERRED TO IN PARTS (c) & (d) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 29 ANSWERED IN THE LOK SABHA ON 25.02.2016 REGARDING POWER GENERATION CAPACITY.

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Details of Central Sector under construction Thermal Power Projects in the country

Sl. No.	State	Project Name	Unit No	Capacity (MW)	Expected Commissioning Schedule	Estimated Cost (Rs. Crs)
1	Assam	Bongaigaon TPP/NTPC	U-2	250	Mar-17	6149.18
			U-3	250	Jun-17	
2	Bihar	Barh STPP-I /NTPC	U-1	660	Apr-17	15095.67
			U-2	660	Nov-17	
			U-3	660	May-18	
3	Bihar	Muzaffarpur TPP(Kanti) Exp/ JV of NTPC& BSEB	U-4	195	Mar-16	3942.16
						(for 2 units)
4	Bihar	Nabi Nagar TPP / JV of NTPC & Rly.	U-1	250	Apr-16	5352.51
			U-2	250	Mar-17	
			U-3	250	Jul-17	
			U-4	250	Oct-17	
5	Bihar	New Nabi Nagar TPP /JV of NTPC & BSPGCL	U-1	660	Jun-17	13624.00
			U-2	660	Dec-17	
			U-3	660	Jun-18	
6	Chhattisgarh	Lara TPP / NTPC	U-1	800	Dec-16	11846.00
			U-2	800	Jul-17	
7	Jharkhand	Bokaro "A" TPS Exp. / DVC	U-1	500	Apr-16	4138.41
8	Jharkhand	North Karanpura TPP/ NTPC	U-1	660	Oct-18	14367.00
			U-2	660	Feb-19	
			U-3	660	Jun-19	
9	Karnataka	Kudgi STPP Ph-I/ NTPC	U-1	800	Mar-16	15166.19
			U-2	800	Jan-17	
			U-3	800	Apr-17	
10	Maharashtra	Mouda STPP Ph-II/ NTPC	U-3	660	Jun-16	7921.47
			U-4	660	Feb-17	
11	Maharashtra	Solapur STPP/ NTPC	U-1	660	Apr-17	9395.18
			U-2	660	Aug-17	
12	MP	Gadarwara TPP/ NTPC	U-1	800	Jun-17	11638.55
			U-2	800	Dec-17	
13	MP	Khargone TPP/ NTPC	U-1	660	Mar-19	7820.00
			U-2	660	Sep-19	
14	TN	Neyveli New TPP/ NLC	U-1	500	Nov-17	5907.11
			U-2	500	May-18	
15	Odisha	Darlipalli STPP/ NTPC	U-1	800	Feb-18	12532.44
			U-2	800	Jun-18	
16	Telangana	Telangana Ph-I /NTPC	U-1	800	Jan-20	9954.2*
			U-2	800	Jul-20	
17	Tripura	Agartala /NEEPCO	St-1	25.5	Feb-16	382.41
						(for ST-1 & ST-2)
18	UP	Unchahar - IV/ NTPC	U-6	500	Nov-17	3363.12
19	UP	Meja STPP/ JV of NTPC & UPRVUNL	U-1	660	Apr-17	10821.00
			U-2	660	Oct-17	
20	UP	Tanda TPP/ NTPC	U-1	660	Sep-18	9188.98
			U-2	660	Mar-19	
21	WB	Raghunathpur TPP, Ph-II / DVC	U-1	660	Uncertain	9088.99
			U-2	660	Uncertain	
	TOTAL			26381		
* As per Environmental Clearance letter						

State wise list of Under Construction HEPs /Centrally Generating Stations (CGSs) in the Country						
Sl. No.	Name of Scheme (Executing Agency)	Sector	Installed Capacity. (No. x MW)	Capacity Under Execution (MW)	Commissioning Schedule	Latest Cost (Rs. Crs.)
	Arunachal Pradesh					
1	Kameng (NEEPCO)	Central	4x150	600.00	2016-17 @	6085.84
2	Pare (NEEPCO)	Central	2x55	110.00	2016-17 @	1226.27
3	Subansiri Lower (NHPC)	Central	8x250	2000.00	2020-21 *	18063.89
	Sub-total: Arunachal Pradesh			2710.00		
	Himachal Pradesh					
4	Parbati St. II (NHPC)	Central	4x200	800.00	2018-19	7818.68
	Sub-total: Himachal Pradesh			800.00		
	Jammu & Kashmir					
5	Kishanganga (NHPC)	Central	3x110	330.00	2016-17 @	5497.72
	Sub-total: Jammu & Kashmir			330.00		
	Mizoram					
6	Tuirial (NEEPCO)	Central	2x30	60.00	2017-18	1381.71
	Sub-total: Mizoram			60.00		
	Uttarakhand					
7	Lata Tapovan (NTPC)	Central	3x57	171.00	2021-22 *	1527
8	Tapovan Vishnugad (NTPC)	Central	4x130	520.00	2018-19	3846.3
9	Tehri PSS (THDC)	Central	4x250	1000.00	2019-20	2978.86
10	Vishnugad Pipalkoti (THDC)	Central	4x111	444.00	2019-20	2491.58
	Sub-total: Uttarakhand			2135.00		
	West Bengal					
11	Teesta Low Dam-IV (NHPC)	Central	4x40	160.00	2015-17	1929.15
12	Rammam-III (NTPC)	Central	3x40	120.00	2019-20	1381.84
	Sub-total: West Bengal			280.00		
	Total:			6315.00		
@	Critical for commissioning during 12th Plan					
*	Subject to restart of works					

State wise list of Under Construction Nuclear Power Project in the Country

Sl. No.	Project Name	State	Developer	Sector	Fuel Type	Capacity (MW)
1	Kudankulam	Tamil Nadu	NPC	C	Nuclear	(1x1000) 1000
2	RAPP U 1, 2	Rajasthan	NPC	C	Nuclear	(2x700) 1400
3	Kakrapar U 1,2	Gujarat	NPC	C	Nuclear	(2x700) 1400

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.254
ANSWERED ON 25.02.2016

ALLOCATION OF POWER

†254. SHRI KAUSHALENDRA KUMAR:

Will the Minister of POWER
be pleased to state:

(a) the criteria fixed for allocation of power from Central Sector Power Undertakings/Units to States;

(b) whether the allocation of power to various States/UTs in the country including Rajasthan has been much less than what has been demanded by them during each of the last three years and the current year;

(c) if so, the State/UT-wise details thereof along with the reasons therefor; and

(d) the remedial steps taken by the Government in this regard?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : The details of guidelines for the allocation of power to States/Union Territories (UTs) are given at Annex-I.

(b) to (d) : The allocation of power from Central Generating Stations (CGSs) to various States/UTs in the country is done as per the extant guidelines and the entire capacity is limited and stands fully allocated at any point of time. Enhancement in allocation to one or more State(s)/UT(s) can be done only by equivalent reduction in the allocation to other beneficiaries which is not possible in view of shortages in other States/UTs. However, sometimes, some states surrender their share in CGSs which is reallocated to the other willing states/UTs subject to availability of transmission corridor.

The State/UT-wise details of allocation from CGSs in the country during the last three years and the current year (April, 2015 to January, 2016) are given at Annex-II.

Electricity is a concurrent subject. Supply and distribution of electricity to various consumers in a State/UT is within the purview of the respective State Government/State Power Utility. The Central Government supplements the efforts of the State Governments by establishing power plants and transmission systems in Central Sector through Central Power Sector Undertakings (CPSUs). A number of Central Generating Projects with capacity of 36496 MW are under construction which would benefit all the States including Rajasthan.

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ANNEX-I

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 254 ANSWERED IN THE LOK SABHA ON 25.02.2016.

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Power from Central Generating Stations to the beneficiary States/Union Territories is allocated in accordance with formula for allocation of power as per the guidelines from April, 2000. As per these guidelines, allocation of power is made to the States/ UTs in two parts, namely firm allocation of 85% and unallocated power of 15% for allocation for meeting the urgent/overall requirement.

The firm allocation includes allocation of 12% free power to the affected States and 1% for local area development in case of Hydro Power Stations and 10% (paid) power to the home State in case of Thermal and Nuclear Power Stations.

The balance (72% in case of Hydro and 75% in case of Thermal & Nuclear) power is distributed amongst the States / UTs of the region in accordance with the pattern of central plan assistance and energy consumption during the previous five years, both factors having equal weightage. Central plan assistance is determined in accordance with the Gadgil formula, in which population of the States is also taken into consideration. In case of joint venture projects, the equity contributing States get benefit in firm allocation in accordance with their equity contribution.

The aforementioned guidelines for allocation of power from Central Generating Stations are applicable to the generating stations, for which Power Purchase Agreements (PPAs) have been signed upto 5th January, 2011 and for the capacity extension of the existing projects. After 5th January, 2011, power is to be procured by the Distribution Companies / Utilities through tariff based competitive bidding. In 14 new projects of NTPC, the Central Government has, in January, 2011, approved allocation of 50% of power to 'Home' State, 15% unallocated power at the disposal of Government of India and 35% to other constituents (except 'Home' State) of that region on the basis of extant guidelines on allocation of power (giving equal weightage to central plan assistance and energy consumption by each State of the Region for preceding 5 years). Similar dispensation has also been provided by the Government in January, 2011 in respect of new projects of Nuclear Power Corporation.

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ANNEX-II

ANNEX REFERRED TO IN REPLY TO PARTS (b) to (d) OF UNSTARRED QUESTION NO. 254 ANSWERED IN THE LOK SABHA ON 25.02.2016.

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Allocation from Central Generating Stations					
Sl. No.	State	As on 31-3-2013	As on 31-3-2014	As on 31-3-2015	As on 31-1-2016
		(MW)	(MW)	(MW)	(MW)
1	Chandigarh	211	176	176	223
2	Delhi	4232	4518	3725	4182
3	Haryana	2224	2499	2565	2548
4	Himachal Pradesh	1219	1244	1349	1526
5	Jammu & Kashmir	1700	1916	2013	2222
6	Punjab	2113	2303	2310	2281
7	Rajasthan	2831	2922	3008	3103
8	Uttar Pradesh	5779	6132	6352	6548
9	Uttarakhand	844	938	932	1036
10	Chhattisgarh	1126	1189	1214	1180
11	Gujarat	3368	3608	3608	3701
12	Madhya Pradesh	4527	4742	4769	4911
13	Maharashtra	6781	7027	6994	6555
14	Daman & Diu	319	322	320	326
15	D.N. Haveli	907	930	899	871
16	Goa	492	502	522	507
17	Andhra Pradesh	3675	3697	2003	1782
18	Telangana	----	----	2148	2405
19	Karnataka	1810	1895	2147	2656
20	Kerala	1633	1639	1858	2155
21	Tamil Nadu	3766	4097	5020	5649
22	Pondicherry	396	387	415	445
23	Bihar	1802	1918	2864	2793
24	DVC	5990	6018	6018	6518
25	Jharkhand	562	537	584	584
26	Odisha	1705	1702	1750	1750
27	West Bengal	1403	1548	1548	1548
28	Sikkim	150	149	159	159
29	Arunachal Pradesh	134	133	133	157
30	Assam	746	727	777	993
31	Manipur	123	123	123	175
32	Meghalaya	212	205	205	236
33	Mizoram	74	74	74	97
34	Nagaland	80	79	79	108
35	Tripura	105	105	105	371

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.268
ANSWERED ON 25.02.2016

USE OF COAL IN POWER GENERATION

268. SHRI K.N. RAMACHANDRAN:

Will the Minister of POWER
be pleased to state:

(a) whether the Government has any mechanism to assess the total quantity of coal used for purpose of power generation in the country, if so, the details thereof;

(b) the details of estimated cost of production of power per unit from this source;

(c) whether it is a fact that thermal power is not cost effective, if so, the details thereof; and

(d) the steps taken by the Government to reduce the cost of production of power from this source?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : The Central Electricity Authority (CEA) has issued on 15th January, 2015 the norms for annual coal consumption in thermal power plants at 85% Plant Load Factor (PLF) for different grades of coal. The details of the norms is given at Annex.

(b) : The cost of production of coal based power plants depends on various factors i.e. grade/ gross calorific value (GCV) of coal, moisture content, ash content, distance from mine to plant and unit size of the power plant etc. In addition, the cost of power production for the coal based power plants designed on imported coal depends on various factors such as country of origin of coal, GCV, moisture content, ash content, Ocean freight, distance of plant from the port etc. As per CERC Annual Report 2014-15, the tariff for coal based power plants of central generating stations under the regulated tariff regime varied from Rs. 1.58 per kWh to Rs. 5.53 per kWh.

.....2.

(c) : **Coal based thermal power plants are cost effective and get scheduled as per their merit order. During the year 2015-16 (upto January, 2016), coal based generation was around 77% of the total power generation in the country.**

(d) : **In order to reduce cost of power generation from coal based power plants, the Government has taken various measures viz. coal linkage rationalisation, coal swaps, correction in coal grade slippage by introducing independent third party sampling and allocating coal linkages at notified price etc. In addition, replacing the old inefficient thermal generating units by super critical units and Renovation & Modernisation / life extension of old inefficient units is also being undertaken to reduce cost of power generation.**

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ANNEX

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 268 ANSWERED IN THE LOK SABHA ON 25.02.2016.

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Norms for Coal consumption in TPPs issued on 15.01.2015

Annual coal consumption at 85% PLF (Tones per MW per Annum)

Grade	GCV Considered (kcal/kg)	Sub Critical Technology				Super-critical units #
		Less than 100MW	100MW to less than 200 MW*	200MW to less than 250 MW*	250 MW and above #	
		Unit Heat Rate (kcal/kWh)				
		2770	2615	2500	2375	2250
		Annual coal consumption at 85% PLF (Tonnes per MW per Annum)				
G4	6100	3381	3192	3052	2899	2746
G5	5800	3556	3357	3209	3049	2889
G6	5500	3750	3540	3385	3215	3046
G7	5200	3966	3744	3580	3401	3222
G8	4900	4209	3974	3799	3609	3419
G9	4600	4484	4233	4047	3844	3642
G10	4300	4797	4528	4329	4113	3896
G11	4000	5156	4868	4654	4421	4188
G12	3700	5574	5263	5031	4780	4528
G13	3400	6066	5727	5475	5201	4928
G14	3100	6653	6281	6005	5705	5404
G15	2800	7366	6954	6648	6316	5983

Note: In case of power projects where approved heat rate by Regulator is higher than above considered value, the Heat Rate approved by Regulator would be considered for the purpose of working out normative coal consumption requirement.

* In case of main steam pressure is 150 ata or above the Unit Heat Rate shall be reduced by 100 kcal/ kWh

\# In case of units having Motor Driven Boiler Feed Pump (MDBFP) of 500 MW and above size units including Super Critical units, the unit heat rate shall be reduced by 50kcal/kWh.

Following formula may be used for conversion of coal consumption to MTPA per 1000 MW:

MTPA per 1000 MW = Tonnes per MW per Annum/1000.

These norms will be applicable for Captive Power Plants (CPP) also.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.295
ANSWERED ON 25.02.2016

CONCESSION TO GAS BASED POWER PLANTS

295. SHRI V. ELUMALAI:

Will the Minister of POWER
be pleased to state:

(a) the details of specific concessions like waiver of custom duty, VAT, etc. having extended to gas based power plants;

(b) the details of the cost of taxing per unit of gas, coal, hydro, solar based power plants respectively; and

(c) the details of concessions given to power plants other than gas based plants?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : Government has exempted Customs Duty on imported LNG used for power generation. Government of India has sanctioned a scheme for importing spot RLNG in 2015-16 and 2016-17 for the stranded gas based power plants as well as for plants receiving gas upto the target PLF selected through reverse e-bidding process. The concessions provided for under the scheme are as under:

- **(i) Custom duty waiver on imported LNG;**
- **(ii) Waiver of Value Added Tax, Central Sales Tax, Octroi and Entry Tax ;**
- **(iii) Waiver of Service Tax on regasification and transportation;**
- **(iv) Reduction in pipeline tariff charges, regasification charges and marketing margin;**
- **(v) Exemption from transmission charges and losses for stranded gas based power projects.**

(b) : There is no tax on generation of power for gas / coal / hydro / solar based power plants.

(c) : Concessions given to power plants other than gas based plants are given at Annex.

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ANNEX

ANNEX REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 295 ANSWERED IN THE LOK SABHA ON 25.02.2016.

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(i) Under the Mega Power Policy, power projects are given benefits for Zero Customs Duty for import of capital equipment, Deemed Export Benefits under Chapter 8 of Foreign Trade Policy (FTP). Mega Power policy is withdrawn for new projects other than those already issued mega/provisional mega certificates before 19.07.2012.

(ii) A 10 year Income Tax holiday for power projects commissioned before 01.4.2017.

(iii) The concessions/incentives offered by the Government for solar power plants are as follows:

(a) Grant of subsidy on off-grid applications

(b) Provision of Renewable Purchase Obligation (RPO) for solar has been made in the National Tariff Policy.

(c) Generation Based Incentives (GBI) and facility for bundling power grid connected solar power projects through various interventions announced from time to time.

(d) Grant of Viability Gap Funding (VGF).

(e) Renewable Energy Sector has been awarded Priority Sector Lending status.

(f) Concessional Import duty/Excise duty exemption for setting up of solar power plants, accelerated depreciation and tax holiday.

(g) Roof-top Solar PV systems have been made eligible for home loans.

(h) Tax free green bonds of INR 5,000 crores.

(i) Creation of Payments Security Mechanism.

(j) Development of solar parks.

(k) Setting up of green Energy Corridors.

(l) Waiver of wheeling charges on Inter -State Transmission system (ISTS) network

(iv) The concessions / incentives offered by the Government for wind energy is as follows :

(a) The Govt. provides fiscal incentives such as 80% accelerated depreciation and 10 years Income Tax holiday.

(b) concessional custom duty on import of specified components and excise duty exemptions provided towards manufacturing of wind electric generators and parts thereof.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.317
ANSWERED ON 25.02.2016

POWER GENERATION CAPACITY

317. SHRI MALLIKARJUN KHARGE:

Will the Minister of POWER
be pleased to state:

(a) the details of the thermal and hydro power generated during each of the last three years;

(b) the details of the quantity of coal imported and indigenously produced in each of the last three years and likely to be imported and domestically produced in the next three years;

(c) whether the Government has adopted a go-slow policy on new hydropower projects; and

(d) if so, the reasons therefor along with the steps taken to tap the potential of hydro and thermal power generation in the country?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : The details of the generation from thermal and hydro power stations during last three years are at Annex-I.

(b) : The details of total quantity of coal imported and coal received from the indigenous sources by thermal power plant during last three years and likely to be imported and domestically provided for use in thermal power plants in next three years are at Annex-II.

(c) & (d): The Government is making all out efforts to develop hydro projects. At present, 47 nos. of Hydro Electric Schemes with total installed capacity of 13,622 MW (including 2 pumped storage schemes (PSS) with installed capacity of 1,080 MW) are under construction.

.....2.

The steps taken to tap the potential of Hydro and thermal power generation in the country, inter alia, are:

(i) A number of projects have been prioritized which are being monitored regularly at highest levels by the Govt. of India for their expeditious implementation.

(ii) Central Electricity Authority (CEA) is monitoring the progress of each project regularly through frequent site visits, interaction with the developers and critical study of monthly progress reports.

(iii) A Power Project Monitoring Panel (PPMP) has been set up by the Ministry of Power to independently follow up and monitor the progress of the hydro projects.

(iv) Regular review meetings are taken by Ministry of Power / CEA with equipment manufacturers, State Utilities / CPSUs / Project developers, etc. to sort out the critical issues.

(v) A Consultation Process has been evolved for Fast Tracking of Survey & Investigation (S&I) activities and preparation of Quality DPRs wherein appraising agencies advise Developer in carrying out various investigations and firming up the project layout etc.

(vi) Making sufficient fuel available to the thermal power plants.

(vii) Development of Ultra Mega Power Projects of above 4,000 MW each to tap the thermal potential in the country.

(viii) Measures have been included in the New Tariff Policy to help in speedy development of hydro and thermal projects.

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ANNEX-I

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 317 ANSWERED IN THE LOK SABHA ON 25.02.2016.

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Generation from thermal and hydro power stations during last three years and current year

Category	Generation (Million Unit)		
	2014-15	2013-14	2012-13
THERMAL	878320.03	792477.11	760675.80
HYDRO#	129243.65	134847.54	113720.29

(above 25MW capacity)

*** PROVISIONAL BASED ON ACTUAL-CUM-ASSESMENT**

 # Hydro generation does not include import from Bhutan.

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ANNEX-II

ANNEX REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 317 ANSWERED IN THE LOK SABHA ON 25.02.2016.

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Total quantity of coal imported and coal received by the indigenous sources by thermal power plant during last three years and next three years

Years	Figures in Million Tonne (MT)		
	Coal receipt from		
	Indigenous Source	Import	Total
2012-13	410.2	63.2	473.4
2013-14	418.1	80	498.1
2014-15	461.5	91.2	552.7
	Coal likely to be received from		
	Indigenous Source	Import	Total
2015-16	493	84	577
2016-17	548	48	596
2017-18	603	49	652
2018-19	699	50	749

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.344
ANSWERED ON 25.02.2016

BIG HYDRO UNITS UNDER RENEWABLE ENERGY

344. SHRI GUTHA SUKENDER REDDY:

Will the Minister of POWER
be pleased to state:

(a) whether the Government proposes to bring Big Hydro Units under the ambit of Renewable Energy;

(b) if so, the details thereof; and

(c) the status thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : No, Madam.

(b) & (c) : Do not arise.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.347
ANSWERED ON 25.02.2016

SUBSIDY ON LED

†347. SHRI VIJAY KUMAR HANSDAK:

Will the Minister of POWER
be pleased to state:

(a) whether the Government proposes to stop the subsidy being given to the CFL based solar lighting systems in order to promote LED based solar lighting system;

(b) if so, the details thereof; and

(c) the details of the specific policy of the Government to promote the LED systems which are consuming lesser electricity and are safer for the environment also?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : Yes, Madam. The Ministry of New and Renewable Energy (MNRE), Government of India has stopped subsidy for Compact Fluorescent Lamp (CFL) solar lighting systems to encourage LED based solar lighting systems except for already sanctioned case.

(c) : MNRE provides LED based systems for solar lantern, solar street lights and solar home lights under Off-Grid and Decentralized Application Programme. Further, the Hon'ble Prime Minister of India has launched the National LED programme on 5th January, 2015 which is being implemented by Energy Efficiency Services Limited (EESL), a joint venture company under Ministry of Power. Under this programme, two initiatives viz. Domestic Efficient Lighting Programme (DELP) and Street Light National Programme (SLNP) have been initiated wherein household lighting and street lights respectively are replaced with LEDs.

So far 6.65 crore LEDs have been distributed under DELP. Due to transparent and bulk procurement, there has been reduction of almost 80% in price of LEDs in last two years i.e. from Rs.310 in February, 2014 for 7W LED bulb to Rs. 64 in January, 2016 for a 9W LED bulb. Further, there has been environmental benefit in terms of reduction in Green House gases emission to the tune of 7 million tons per year on account of DELP and 0.5 million tons per year on account of SLNP.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.348
ANSWERED ON 25.02.2016

SHARING OF WATER

†348. SHRI GAJENDRA SINGH SHEKHAWAT:

Will the Minister of POWER
be pleased to state:

(a) whether any agreement between the Central Government and Rajasthan Government has been signed regarding share in Hydro Power projects of Punjab;

(b) if so, the details thereof; and

(c) the steps proposes to be taken by the Centre to allocate the prescribed share to the State Government of Rajasthan as mentioned in the agreement?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) to (c) : An agreement was reached between the States of Punjab, Haryana & Rajasthan and Government of India on 10.05.1984, wherein it was agreed that in view of the claims raised by Haryana and Rajasthan for sharing of power in Anandpur Sahib Hydel Project, Mukerian Hydel Project, Thein Dam project, UBDC Stage–II and Shahpur Kandi hydel Scheme, the Government of India shall refer the matter to the Hon'ble Supreme Court for its opinion. The opinion of the Hon'ble Supreme Court was to be sought on whether the States of Rajasthan and Haryana are entitled to a share in the power generated from these hydel schemes and in case they are, what would be the share of each State.

However, subsequently in the discussions held between the Chief Ministers of Punjab, Haryana and Rajasthan on 29-30 July,1992 and 6th August,1992, a consensus was reached not to refer the matter to the Hon'ble Supreme Court. It was also decided that these States would come to a reasonable agreement through mutual consultations. In order to resolve the issue amicably, a number of formal discussions have taken place. However, no consensus has emerged so far on the divergent views of the stakeholder States.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.349
ANSWERED ON 25.02.2016

NATIONAL POWER TRAINING INSTITUTES

349. SHRI K.C. VENUGOPAL:

Will the Minister of POWER
be pleased to state:

(a) the details of National Power Training Institutes in the country;

(b) whether the Government has taken adequate measures to ensure quality training education through National Power Training Institute;

(c) if so, the details thereof;

(d) whether the Government has taken any measures to commence the functioning of the proposed NPTI at Alleppey in Kerala; and

(e) if so, the details thereof and if not, the reasons therefor?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : The details of the National Power Training Institutes (NPTI) in the Country are as under:

1. **NPTI Corporate Office, Faridabad.**
2. **NPTI (Northern Region), Badarpur, New Delhi.**
3. **NPTI (Hydro Power Training Centre), Nangal.**
4. **NPTI (Power System Training Institute), Bengaluru.**
5. **NPTI (Hot Line Training Centre), Bengaluru.**
6. **NPTI (Southern Region), Neyveli.**
7. **NPTI (Eastern Region), Durgapur.**
8. **NPTI (North Eastern Region), Guwahati.**
9. **NPTI (Western Region), Nagpur.**

.....2.

(b) & (c) : Various measures viz. Renovation, Modernization and Augmentation of existing labs and training infrastructure of NPTI; procurement of 800 MW Supercritical Thermal Power Plant Training Simulator at NPTI, Faridabad; establishment of six multi-functional Simulators replicating the real-time integrated unit operations for 210 MW, 500 MW and 800 MW Thermal Units, 250 MW Hydel Units with additional functionalities of Supervisory Control and Data Acquisition System (SCADA) and Smart Grid at various institutes of NPTI have been taken to ensure quality training education through National Power Training Institute.

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

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.373
ANSWERED ON 25.02.2016

NATIONAL RURAL ELECTRIFICATION SCHEME

373. SHRI PREM SINGH CHANDUMAJRA:

Will the Minister of POWER
be pleased to state:

(a) whether the Government has taken up the work of rural electrification under its National Rural Electrification Scheme (NRES);

(b) if so, the details thereof indicating the number of villages electrified thereunder, State-wise;

(c) the number of villages proposed to be covered under the scheme during the ensuing year, State-wise;

(d) whether the Government has worked out the modalities regarding the distribution of electricity to villages under the scheme; and

(e) if so, the details thereof and the steps taken to ensure uninterrupted power to the villages?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) to (c) : Madam, Ministry of Power does not have any scheme by the name National Rural Electrification Scheme (NRES). However, the work of rural electrification are done under Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY). Cumulatively, as on 31.01.2016, electrification works in 1,13,505 villages have been completed. The State-wise details are given at Annex-I. 5686 un-electrified villages are to be electrified in 2015-16. The State-wise details are given at Annex-II.

(d) & (e) : Apart from village electrification, DDUGJY scheme includes strengthening of sub-transmission, distribution and feeder separation facilitating reliable and quality power supply to villages.

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ANNEX-I

ANNEX REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 373 ANSWERED IN THE LOK SABHA ON 25.02.2016.

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State-wise number of villages electrified under DDUGJY as on 31.01.2016		
Sr. No.	**States**	**Number of villages electrified**
1	Arunachal Pradesh	2079
2	Assam	8737
3	Bihar	24835
4	Chhattisgarh	1514
5	Himachal Pradesh	90
6	Jammu & Kashmir	238
7	Jharkhand	17996
8	Karnataka	55
9	Madhya Pradesh	929
10	Manipur	868
11	Meghalaya	1842
12	Mizoram	170
13	Nagaland	102
14	Odisha	15067
15	Rajasthan	4254
16	Sikkim	25
17	Tripura	151
18	Uttar Pradesh	28847
19	Uttarakhand	1514
20	West Bengal	4192
	Total	**113505**

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ANNEX-II

ANNEX REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 373 ANSWERED IN THE LOK SABHA ON 25.02.2016.

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State-wise list of un-electrified villages targeted to be electrified during the year 2015-16

Sl. No	States	Target UE Villages FY 2015-16
1	Assam	517
2	Bihar	1664
3	Chhattisgarh	449
4	Himachal Pradesh	20
5	Jammu & Kashmir	26
6	Jharkhand	907
7	Karnataka	5
8	Madhya Pradesh	234
9	Manipur	274
10	Meghalaya	28
11	Mizoram	16
12	Nagaland	28
13	Odisha	351
14	Rajasthan	151
15	Sikkim	1
16	Tripura	13
17	Uttar Pradesh	984
18	West Bengal	18
Total		*5686*

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.387
ANSWERED ON 25.02.2016

POWER TARIFF POLICY

387. DR. HEENA VIJAYKUMAR GAVIT:
DR. SHRIKANT EKNATH SHINDE:
SHRI VINAYAK BHAURAO RAUT:
SHRI SATAV RAJEEV:
SHRI B. VINOD KUMAR:
SHRI MOHITE PATIL VIJAYSINH SHANKARRAO:
SHRI NAGENDRA KUMAR PRADHAN:
SHRI M. K. RAGHAVAN:
SHRI S. R. VIJAYAKUMAR:
SHRI VENKATESH BABU T.G.:
SHRI B. SENGUTTUVAN:
SHRI RAHUL SHEWALE:

Will the Minister of POWER
be pleased to state:

(a) whether the Government proposes to introduce a consumer friendly power tariff policy, if so, the details and objective thereof along with the time by which the policy is likely to be implemented;

(b) the manner and the extent to which the consumer and suppliers are likely to be benefited therefrom; and

(c) the other steps taken/being taken by the Government to provide round the clock power supply?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : The Union Cabinet on 20th January, 2016, has approved the proposal for amendments in Tariff Policy. The revised Tariff Policy has been notified in the official Gazette on 28th January, 2016. The objectives of this revised policy are to:

(i) Ensure availability of electricity to consumers at reasonable and competitive rates;

(ii) Ensure financial viability of the sector and attract investments;

.....2.

(iii) Promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimize perceptions of regulatory risks;

(iv) Promote competition, efficiency in operations and improvement in quality of supply;

(v) Promote generation of electricity from Renewable sources;

(vi) Promote Hydroelectric Power generation including Pumped Storage Projects (PSP) to provide adequate peaking reserves, reliable grid operation and integration of variable renewable energy sources;

(vii) Evolve a dynamic and robust electricity infrastructure for better consumer services;

(viii) Facilitate supply of adequate and uninterrupted power to all categories of consumers;

(ix) Ensure creation of adequate capacity including reserves in generation, transmission and distribution in advance, for reliability of supply of electricity to consumers.

The amendments in the policy will benefit power consumers and suppliers in multiple ways. It will ensure availability of electricity to consumers at reasonable and competitive rates, ensure financial viability of the sector and attract investments, promote transparency, consistency and predictability in regulatory approaches across jurisdictions. It will further facilitate competition, efficiency in operations and improvement in quality of supply of electricity and will spur renewable power for a cleaner environment and protect India's energy security. It will boost the power sector and make its growth more sustainable.

(c) : The following steps have been taken/being taken by the Government to provide round the clock power supply:

(i) Capacity addition of 1,18,537 MW (including 88,537 MW conventional and 30,000 MW renewable) during the 12th Plan, i.e. by 2016-17. As against this, about 74871 MW from conventional sources has been achieved till 20.02.2016 and about 14,612 MW from renewable sources till 31.1.2016.

(ii) Construction of 1,07,440ckm transmission lines and setting up of 2,82,740 MVA transformation capacity during the 12th Plan, i.e. by 2016-17. As against this, 80501 ckm of transmission lines and 228390 MVA of transformation capacity have been achieved till 31st January, 2016.

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

.....3.

(iv) **Two new schemes are being implemented by the Government of India, namely, Deendayal Upadhyaya Gram Jyoti Yojana and Integrated Power Development Scheme for strengthening of sub-transmission and distribution networks and for segregation of agricultural feeders to give adequate and reliable supply and reduce line losses.**

(v) **Promotion of energy conservation, energy efficiency and other demand side management measures.**

(vi) **Central Government has notified a new scheme namely Ujjawal Discom Assurance Yojana (UDAY) on 20.11.2015 for Operational & Financial Turnaround of Discoms.**

(vii) **Expeditious resolution of issues relating to Environmental and forest clearances for facilitating early completion of generation and transmission projects.**

(viii) **Providing support from Power System Development Fund for stranded gas based generation.**

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.447
ANSWERED ON 25.02.2016

COMPENSATION BY NTPC

†447. SHRI TAMRADHWAJ SAHU:

Will the Minister of POWER
be pleased to state:

(a) the number of land displaced persons who have been compensated/yet to be compensated from NTPC Raigarh Power Project in Chhattisgarh;

(b) the number of land displaced persons who have been given employment; and

(c) the steps taken by the Government to provide rehabilitation to landless agricultural labourers and non-agricultural labourers including Tendupatta collectors?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : NTPC is setting up a 3x800 MW Lara Super Thermal Power Project in Raigarh district of Chhattisgarh. Land Acquisition (LA) for the project is being done by the State Government of Chhattisgarh under LA Act. Till date, 2510 Project Affected Persons (PAPs) have been paid land compensation by District Administration. However, LA process is still in progress. Final list of persons to be compensated will be known after completion of LA process.

(b) : Due to State-of-the-art technology being adopted at Lara project, opportunities for direct employment of the persons who are not technically qualified are very restricted. As an alternative to employment options of rehabilitation grant in the form of either annuity for 30 years or lumpsum cash payment were finalized in consultation with the PAPs and the District Administration. Further, Power projects generate ample downstream employment opportunities to affected families through contracting agencies, petty contracts, cooperative societies and other self-employment avenues.

(c) : Rehabilitation grants is paid to landless labourers including Tendupatta Collectors. Disbursement of Rehabilitation grant to eligible persons as certified by the District Administration has been initiated.

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