

GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
STARRED QUESTION NO.74  
ANSWERED ON 20.07.2017

RETROFITTING OF CONVENTIONAL STREET LIGHTS WITH LED LIGHTS

\*74. SHRI D.K. SURESH:

Will the Minister of POWER  
be pleased to state:

- (a) whether the Government has any proposal to retrofit all conventional street lights with LED lights in the country;
- (b) if so, the details thereof;
- (c) whether the Government has taken any initiative in this regard and if so, the details thereof;
- (d) the estimated upfront capital cost of this project; and
- (e) whether the Government has made any budgetary provision for the project and if so, the details thereof?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) to (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.74 ANSWERED IN THE LOK SABHA ON 20.07.2017 REGARDING RETROFITTING OF CONVENTIONAL STREET LIGHTS WITH LED LIGHTS.

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(a) to (c) : 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. This programme is being implemented by Energy Efficiency Services Limited (EESL), a joint venture company of Public Sector Undertakings (PSUs) under the Ministry of Power. As on 10<sup>th</sup> July, 2017, over 26.90 lakh conventional street lights have been replaced with smart and energy efficient LED Street lights across India.

(d) & (e) : No Budgetary provision has been made for SLNP. This programme is based on a sustainable business model, where the cost of efficient lighting is repaid by Urban Local Bodies (ULBs) from savings in energy and maintenance expenditure over a period of time through savings in electricity bill. Under this programme, the entire upfront investment is made by EESL. EESL procures LED street lights through a transparent and competitive bidding process by aggregating the demand for the same across the country. The bulk procurement of LED lights through a transparent and competitive bidding process enables EESL to install LED lights in ULBs at lower rates compared to retail market.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
STARRED QUESTION NO.76  
ANSWERED ON 20.07.2017

HYDRO-ELECTRICITY GENERATION CAPACITY

†\*76. DR. RAMESH POKHRIYAL "NISHANK":

Will the Minister of POWER  
be pleased to state:

- (a) the existing hydro electricity generation capacity across the country;
- (b) whether various agencies have been roped in by the Government to survey/assess the capacity to generate hydro electric power in the country and if so, the details thereof;
- (c) the current quantum of hydro electricity being generated in various States of the country;
- (d) the number of hydel power projects stuck due to various reasons and the expenditure incurred thereon so far; and
- (e) whether any assessment of loss due to delay in these projects has been made by the Government and if so, the details thereof, 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) to (e) : A Statement is laid on the Table of the House.

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STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF STARRED QUESTION NO.76 ANSWERED IN THE LOK SABHA ON 20.07.2017 REGARDING HYDRO-ELECTRICITY GENERATION CAPACITY.

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(a) : As on 30.06.2017, the existing total installed Hydel electricity generation capacity of the country is 44614.42 MW.

(b) : Based on the reassessment studies completed by Central Electricity Authority (CEA) in the year 1987, the identified hydro generation capacity in the country was estimated as about 84000 MW at 60% load factor with probable installed capacity of 148701 MW (145320 MW from H.E. schemes above 25 MW capacity). In February, 2017, M/s WAPCOS Limited has been entrusted the task of basin-wise review of hydro generation capacity in the country by CEA.

(c) : During 2017-18 (up to 30.6.2017), 36243.56 Million Units hydro power has been generated from projects of 25 MW and above in various States of the country.

(d) : At present, there are 41 HE projects (above 25 MW), totalling to 11792.50 MW under construction in the country. Out of the above, 14 HE projects, totalling to 5055 MW, are stalled due to various constraints like land acquisition, inter-state issues, financial constraints, law and order / local issues, contractual issues, inadequate infrastructure facilities, environment and forests issues, natural calamities, etc. An expenditure of Rs.20770 crores has been made on the above stalled projects.

(e) : As per calculation made by CEA, the annual loss of energy generation from these stalled projects is about 19180.99 Million Units. The cost overrun calculated by CEA due to these stalled projects is Rs.25593.78 crore. Details of cost overrun is given at Annex.

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ANNEX REFERRED TO IN PART (e) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 76 ANSWERED IN THE LOK SABHA ON 20.07.2017 REGARDING HYDRO-ELECTRICITY GENERATION CAPACITY.

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STATE-WISE DETAILS OF STALLED HYDRO ELECTRIC PROJECTS  
(ABOVE 25 MW) HAVING COST OVERRUN

As on 30.06.2017

Sl. No	Project Name/(I.C.)/ Executing Agency	Name of the State	Org. Cost (Rs. in Crores)	Anticipated Cost (Rs. in Crores)	Cost over run (Rs. in Crores)
	CENTRAL SECTOR				
1	Lata Tapovan (3x57 = 171 MW) NTPC	Uttarakhand	1527.00 (12/06)	1801.07 (12/13)	274.07
2	Subansiri Lower (8x250 = 2000 MW), NHPC	Arunachal Pradesh	6285.33 (12/02)	17435.15 (02/16)	11149.82
	STATE SECTOR				
3	Shahpurkandi (3x33+3x33+1x8=206 MW) Irrigation Deptt. &PSPCL	Punjab	2285.81 (04/08)	2285.81 (04/08)	-
4	Thottiyar (1x30+1x10)= 40MW KSEB	Kerala	136.79 (2007)	150.02 (2007)	13.23
5	Koyna Left Bank PSS (2x40 = 80 MW) WRD, Maha	Maharashtra	245.02 (1999)	1494.94 (2014)	1249.92
	PRIVATE SECTOR				
6	Maheshwar (10x40 = 400 MW) SMHPCL	Madhya Pradesh	1569.27 (96-97)	6793.00	5223.73
7	Teesta Stage VI (4x125 = 500 MW) Lanco Energy Pvt. Ltd.	Sikkim	3283.08 (2008)	7542.00 (12/16)	4258.92
8	Rangit-IV HE Project (3X40 = 120 MW) JPCL	Sikkim	726.17 (09/07)	1692.60 (06/16)	966.43
9	Panan (4x75= 300 MW) Himagiri Hydro Energy Pvt. Ltd.	Sikkim	1833.05 (2009)	2400.00 (09/16)	566.95
10	Ratle (4x205+1x30) = 850 MW Ratle HEP Pvt. Ltd.	Jammu & Kashmir	5517.02 (03/12)	6257.00 (09/2013)	739.98
11	Tangnu Romai-I (2x22 = 44 MW) TRPGPL	Himachal Pradesh	255.00 (2006)	562.97 (01/17)	307.97
12	Tidong-I (2x50 =100 MW) NSL Tidong	Himachal Pradesh	543.15 (08/05)	1286.27 (01/17)	743.12
13	Sorang (2x50 = 100 MW), HSPPL	Himachal Pradesh	586.00 (2006)	586.00 (Under revision)	-
14	Gongri (2x72= 144 MW) Dirang Energy (P) Ltd	Arunachal Pradesh	1436.27 (05/12)	1535.91 (10/16)	99.64
					25593.78

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GOVERNMENT OF INDIA  
MINISTRY OF POWER  
LOK SABHA  
UNSTARRED QUESTION NO.697  
ANSWERED ON 20.07.2017

ELECTRIFICATION OF VILLAGES IN ASSAM

†697. SHRI NABA KUMAR SARANIA:

Will the Minister of POWER  
be pleased to state:

- (a) the details of the total funds released to Assam after 2014 under Deen Dayal Upadhyaya Gram Jyoti Yojana;
- (b) the details of the number of homes electrified under the Yojana so far in the State; and
- (c) the details of the villages electrified in the State so far particularly in Kokrajhar region?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) : Rs.969.27 crore has been released to the State of Assam since the financial year 2014-15 to 2017-18 (till 30.06.2017) under Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY).

(b) : Under DDUGJY, access to electricity is provided to all the rural households and free electricity service connection is provided to all eligible BPL households in the country. Under the scheme, free electricity service connections to 12.10 lakh BPL households have been released in the State of Assam as on 30.06.2017.

(c) : Based on the information provided by the Government of Assam, cumulatively, 10,623 villages have been electrified in the State under RE Component of DDUGJY (including 122 un-electrified villages electrified under State Plan), as on 30.06.2017. This includes 451 villages of district Kokrajhar.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER  
LOK SABHA  
UNSTARRED QUESTION NO.702  
ANSWERED ON 20.07.2017

GREEN POWER CORRIDOR IN TAMIL NADU

702. SHRI PR. SENTHIL NATHAN:

Will the Minister of POWER  
be pleased to state:

- (a) the power projects supported by the Union Government in Tamil Nadu and the capacity power generation in each of these power stations in Tamil Nadu;
- (b) whether the Government has plans to create Green Power Corridor in Tamil Nadu;
- (c) if so, the details thereof; and
- (d) 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 central sector power projects located in Tamil Nadu, as on 30.06.2017, are given below:

Category	Name of the Project	Capacity (MW)
Thermal	Neyveli (Ext.) TPS	420
	Neyveli TPS-I	600
	Neyveli TPS-II	1470
	Neyveli TPS-II Exp.	500
	Tuticorin (JV) TPP	1000
	Vallur TPP	1500
	Thermal Total	5490
Nuclear	Kudankulam	2000
	Madras A.P.S.	440
	Nuclear Total	2440
	Total	7930

(b) to (d) : Yes, Madam. In order to facilitate integration of large scale renewable generation capacity addition, a comprehensive transmission plan comprising inter-State and intra-State transmission system has been identified as a part of "Green Energy Corridors" for various states including Tamil Nadu.

Inter-State transmission scheme including transmission elements in Tamil Nadu are being developed by POWERGRID. The Inter-State transmission in Tamil Nadu comprises of establishment of 2x500 MVA, 400/230kV Tirunelveli Pooling station along with 400kV 2xD/C (Quad) line up to Tuticorin pooling station. The scheme is already under implementation.

The Intra-State transmission scheme in Tamil Nadu is being implemented by the State Transmission Utility i.e. Tamil Nadu Transmission Corporation Limited (TANTRANSCO) which includes Establishment of 400/230-110 kV AIS Sub Station at Thennampatty; augmentation of existing GSS at Sembatty, Anupankulam, Cuddalore, Pudukottai, Tiruvannamalai & Villupuram; construction of 400 kV transmission lines connecting Thennampatty-Kayathar & Rasipalayam & Singarapet (Palavadi) and construction of six 230 kV Transmission Lines.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.704  
ANSWERED ON 20.07.2017

INTER-STATE SUPPLY CHARGES

704. SHRI PRABHAKAR REDDY KOTHA:

Will the Minister of POWER  
be pleased to state:

- (a) whether the Union Government has taken a decision to waive inter-state supply charges on solar power projects to make them feasible and to compete with thermal power; 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) : Ministry of Power, Government of India, vide Order dated 14<sup>th</sup> June 2017, has extended the waiver of the inter-State transmission charges and losses for the generation project based on solar resources for use of inter-state transmission system (ISTS) network by such Projects commissioned till 31.12.2019, for a period of 25 years from the date of commissioning of such projects.

Such waiver shall be available only for those projects entering into PPA with Discoms for compliance of their renewable purchase obligation (RPO) and are awarded through competitive bidding process.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.711  
ANSWERED ON 20.07.2017

DVC

†711. DR. RAVINDRA KUMAR RAY:

Will the Minister of POWER  
be pleased to state:

- (a) whether the Government proposes to shift the headquarter of Damodar Valley Corporation (DVC) to Jharkhand as most of its jurisdiction falls in Jharkhand;
- (b) if so, the details thereof and if not, the reasons therefor; and
- (c) the details of advantages and disadvantages keeping the DVC headquarter in Kolkata itself and whether the Government has ever made any assessment in this regard 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) : No, Madam.

(b) & (c) : Damodar Valley Corporation (DVC) is the first major Multipurpose Integrated River Valley Project of India which came into existence on 7 July 1948 by an Act of Central Legislature (Act No. XIV of 1948). DVC was conceived on the lines of the Tennessee Valley Authority (TVA) of the USA. Damodar Valley Corporation has entered into 70<sup>th</sup> year of its existence.

The central activities of DVC pertaining to Administration, Engineering & Planning, Monitoring and Departmental control functions at corporate level are being carried out at the DVC Corporate Headquarters situated at Kolkata. The Operational Headquarters for generation and distribution of electrical energy is in Maithon, located in the State of Jharkhand. The Maithon Operational Headquarters has field base control over generation, transmission and distribution, Project construction, Flood control and Irrigation, Social Integration Programme, Fisheries Development etc. In addition, Soil Conservation Department, Afforestation and Directorate of Rehabilitation and Land Acquisition are also located at Hazaribagh in the State of Jharkhand. The different activities as per requirements of work have been carried out from different centres of operation as was considered convenient and logical.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.717  
ANSWERED ON 20.07.2017

LESS POWER GENERATION

†717. SHRI ANANTKUMAR HEGDE:

Will the Minister of POWER  
be pleased to state:

- (a) whether power generation projects operating in public sector are generating lesser electricity than their installed power generation capacity;
- (b) if so, the details thereof; and
- (c) the number of projects out of them turned unviable due to less 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) & (b) : Power generation projects operating in public sector are generating electricity as per their share in monitored power generation capacity. The generation and monitored capacity in public sector is given at Annexure.

(c) : Plants which are efficient are being utilized more than the other plants. Also, Plants having long term PPA are not expected to be adversely affected as the fixed charges would be admissible based on requisite availability.

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## ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 717 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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% capacity and generation in Public Sector

Sector	2016-17				2015-16				2014-15			
	Monitored Capacity as on 31.03.2017 (MW)	% of cap. as on 31.03.2017	Gen (MU) 2016-17	% of gen. during 2016-17	Monitored Capacity as on 31.03.2016 (MW)	% of cap. as on 31.03.2016	Gen (MU) 2015-16	% of gen. during 2015-16	Monitored Capacity as on 31.03.2015 (MW)	% of cap. as on 31.03.2015	Gen (MU) 2014-15	% of gen. during 2014-15
PUBLIC SECTOR	182513.63	67.92	784681.9	67.64	176187.12	67.92	754337.92	68.09	165460.64	70.20	761913.1	72.65

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.729  
ANSWERED ON 20.07.2017

POWER DISTRIBUTION LOSSES

†729. SHRI ASHOK MAHADEORAO NETE:

Will the Minister of POWER  
be pleased to state:

- (a) the quantum of generation distribution, sale and loss of power during the last these years in the country; and
- (b) the measures taken/schemes formulated by the Government for transmission of power and to minimize the distribution losses?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) : The overall generation of power (including generation from grid connected renewable sources) in the country for the last three years are as given below:

Year	2014-15	2015-16	2016-17
Generation(BU)	1173.458 BU	1173.603 BU	1242.010 BU

As per "Report on Performance of State Power Utilities", published by Power Finance Corporation (PFC) Ltd., the quantum of Net Input Energy (MUs), Net Energy Sold (MUs) and Aggregate Technical & Commercial (AT&C) losses (%) for utilities selling directly to consumers for the years 2012-13 to 2014-15 are as given below:

Year	2012-13	2013-14	2014-15
Net Input Energy (MU)	7,94,834	8,31,989	9,10,285
Net Energy Sold (MU)	6,27,699	6,60,244	7,22,125
AT&C Losses (%)	25.48	22.58	24.62

(b) : For improvement in transmission of Power, POWERGRID has been mandated to develop Inter-State Transmission System (ISTS), which mainly consists of Extra High Voltage (EHV) network of 400kV/765kV AC as well as High Voltage Direct Current (HVDC) network. High capacity transmission corridors have been developed coupled with latest technology, like Gas Insulated Switchgear (GIS) substations, Flexible Alternating Current Transmission System (FACTS) devices,  $\pm 800$ kV HVDC etc. to reduce the losses in the transmission network.

To minimize the distribution losses, responsibility lies primarily with the Distribution Utilities and power departments/Utilities. To facilitate the reduction of AT&C losses, the Government of India has launched various programmes/schemes such as Integrated Power Development Scheme (IPDS), Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), National Electricity Fund (NEF) and Ujwal DISCOM Assurance Yojana (UDAY). Emphasis has also been given for porting urban and rural feeder energy data on an online platform so that loss pockets can be identified easily.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.743  
ANSWERED ON 20.07.2017

ELECTRIFICATION OF VILLAGES

743. SHRI RAJESH PANDEY:  
SHRI NISHIKANT DUBEY:

Will the Minister of POWER  
be pleased to state:

- (a) the actual number of rural villages which were electrified during the last year under the Deendayal Upadhyaya Gram Jyoti Yojana, State-wise especially in Uttar Pradesh and Jharkhand;
- (b) whether any study has been conducted to ascertain the number of villages/habitations where electrification work is yet to be undertaken in order to fix the target; and
- (c) 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) : Based on the information provided by the States, 6,015 census villages were electrified across the country. The State-wise details of number of villages electrified in the country including Uttar Pradesh and Jharkhand during last year are furnished at Annexure.

(b) & (c) : As reported by the States, as on 30.06.2017, there are 3,618 un-electrified census villages in the country.

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ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 743  
ANSWERED IN THE LOK SABHA ON 20.07.2017.

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State-wise details of villages electrified during 2016-17

Sr. No.	State	2016-17
1	Arunachal Pradesh	175
2	Assam	1,218
3	Bihar	556
4	Chhattisgarh	294
5	Himachal Pradesh	27
6	J & K	5
7	Jharkhand	1,104
8	Karnataka	14
9	Madhya Pradesh	159
10	Manipur	121
11	Meghalaya	681
12	Mizoram	24
13	Nagaland	76
14	Odisha	1,092
15	Rajasthan	263
16	Tripura	17
17	Uttar Pradesh	162
18	Uttarakhand	18
19	West Bengal	9
	Total	6,015

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.767  
ANSWERED ON 20.07.2017

LED STREET LIGHT PROJECT

767. DR. KIRIT SOMAIYA:

Will the Minister of POWER  
be pleased to state:

- (a) whether the Government has considered LED street light project throughout the country;
- (b) if so, the details thereof and the detail of the action plan for implementation of this project;
- (c) whether the LED street light project has been started in some metro cities including Mumbai;
- (d) if so, the detailed status thereof; and
- (e) if not, the time by which the project will be implemented?

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, 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. This programme is being implemented by Energy Efficiency Services Limited (EESL), a joint venture company of Public Sector Undertakings (PSUs) under the Ministry of Power. SLNP is based on a sustainable business model where the cost of efficient lighting is repaid by Urban Local Bodies (ULBs) from savings in energy and maintenance expenditure over a period of time through savings in

electricity bill. Under this programme, the entire upfront investment is made by EESL. EESL procures LED street lights through a transparent and competitive bidding process by aggregating the demand for the same across the country. The bulk procurement of LED lights through a transparent and competitive bidding process enables EESL to install LED lights in ULBs at lower rates compared to retail market.

As on 17<sup>th</sup> July 2017, over 27.33 lakh smart and energy efficient LED street lights have been installed in Twenty Five (25) States/UTs.

(c) to (e) : Street Lighting National Programme (SLNP) has been implemented in South Delhi Municipal Corporation (SDMC) and as on 17<sup>th</sup> July 2017, over 2.77 lakh conventional street lights have been replaced by LED street lights. As regards Mumbai, EESL has implemented a pilot project at Marine Drive, where 659 conventional street lights have been replaced with LEDs.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.792  
ANSWERED ON 20.07.2017

UDAY

792. DR. K. GOPAL:

Will the Minister of POWER  
be pleased to state:

- (a) whether most of the States have joined the UDAY scheme and if so, the details thereof;
- (b) whether over 92% of country's public sector power distribution sector debt of over Rs. 4 trillion has been covered by UDAY; and
- (c) 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) : Yes, Madam. 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 joined Ujwal Discom Assurance Yojana (UDAY) for financial and operational turnaround of their DISCOMs.

(b) & (c) : Out of Rs.375430.00 crores debt of state owned power distribution utilities, as existing on 31-03-2015, UDAY States account for Rs.3,62,231.00 crores of debt.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.804  
ANSWERED ON 20.07.2017

DISTRIBUTION OF LED

804. SHRI S.P. MUDDAHANUME GOWDA:  
SHRI KAUSHAL KISHORE:

Will the Minister of POWER  
be pleased to state:

- (a) the number of LED bulbs distributed under the National Programme for LED-based Home and Street Lighting and the cost incurred thereon, State-wise;
- (b) whether the Government has achieved its target of installing LED bulbs for domestic and street-lighting in 100 cities and if not, the reasons therefor; and
- (c) the estimated energy savings and reduction of greenhouse gases due to implementation of this programme in the last two years?

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 States/UTs-wise details of distribution of LED bulbs under Unnat Jyoti by Affordable LEDs for All (UJALA) and Street Lighting National Programme (SLNP), till 12<sup>th</sup> July 2017 is given at Annexure. In addition, the private sector suppliers have also sold large quantities given the lower prices and huge demand in the country.

UJALA and SLNP are voluntary in nature and based on a sustainable business model, where the cost of efficient lighting is repaid by consumers/Urban Local Bodies (ULBs) from savings in energy and maintenance expenditure over a period of time through savings in electricity bill. The entire upfront investment is made by Energy Efficiency Services Limited (EESL), a joint venture company of Public Sector Undertakings (PSUs) of Ministry of Power. EESL procures LED bulbs and LED street lights through a transparent and competitive bidding process by aggregating the demand for the same across the country. The bulk procurement of LED bulbs and LED street lights through a transparent and competitive bidding process enables EESL to distribute LED bulbs to consumers and to install LED lights in ULBs, and at lower rates compared to retail market.

(b) : Yes, Madam. As on 31<sup>st</sup> March, 2017, the domestic LED programme UJALA and SLNP are implemented in 437 cities and 544 urban local bodies respectively, which is in excess of the target of covering 100 cities.

(c) : The estimated annual energy savings and estimated reduction of greenhouse gases, on account of distribution of LED bulbs under UJALA and installation of LED street lights under SLNP by EESL, are 34.29 billion units and is 27.56 million tonnes CO<sub>2</sub> per year, respectively. In addition, there are energy savings and reduction of greenhouse gases on account of sale of large quantities of LED bulbs by the private sector suppliers.

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## ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 804 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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The State/UTs-wise details of distribution of LED bulbs under UJALA and installation of LED street lights under SLNP, till 12<sup>th</sup> July 2017:

Sl. No.	States/UTs	No. of LED bulbs distributed under UJALA	No. of LED street lights installed under SLNP
1	Andaman Nicobar	4,00,000	----
2	Andhra Pradesh	2,16,76,533	6,04,808
3	Assam	14,37,000	10,117
4	Bihar	1,38,32,179	2,596
5	Chandigarh	2,30,120	----
6	Chhattisgarh	81,36,274	39,670
7	Dadra & Nagar Haveli	1,35,667	----
8	Daman & Diu	1,35,924	----
9	Delhi	1,15,43,977	2,77,919
10	Goa	8,20,333	1,50,321
11	Gujarat	3,56,73,872	4,40,263
12	Haryana	1,23,91,342	549
13	Himachal Pradesh	76,24,432	48,854
14	Jammu and Kashmir	76,63,760	5,410
15	Jharkhand	1,01,30,427	10,876
16	Karnataka	1,63,67,983	139
17	Kerala	1,01,19,390	9,739
18	Lakshadweep	1,00,000	----
19	Madhya Pradesh	1,38,59,470	9,938
20	Maharashtra	2,12,92,816	35,179
21	Manipur	17,473	----
22	Meghalaya	2,39,981	----
23	Mizoram	5,09,966	----
24	Nagaland	4,09,769	----
25	Odisha	1,06,20,833	2,630
26	Puducherry	6,09,251	300
27	Punjab	1,03,383	3,882
28	Rajasthan	1,34,87,276	7,69,660
29	Sikkim	1,05,148	----
30	Tamil Nadu	4,24,651	700
31	Telangana	13,08,919	1,35,405
32	Tripura	5,71,570	49,807
33	Uttar Pradesh	1,93,04,283	80,416
34	Uttarakhand	38,26,370	500
35	West Bengal	50,27,084	997
	Total	25,01,37,456	26,90,675

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.812  
ANSWERED ON 20.07.2017

CONSTRUCTIONS OF HYDRO POWER PROJECTS

812. SHRI RAMESWAR TELI:  
SHRI PASHUPATI NATH SINGH:

Will the Minister of POWER  
be pleased to state:

- (a) the details of hydro electric projects being constructed in various parts of the country, State-wise;
- (b) whether these has been inordinate delay in completion of many of these projects and if so, the details thereof, State-wise and project-wise;
- (c) whether any time limit has been fixed by which such projects are expected to be completed;
- (d) whether non-completion of such projects have caused serious financial losses; and
- (e) the steps taken/being taken for timely completion of hydro-electric projects across the country?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) : As on 30.06.2017, 41 Hydro-electric projects (above 25 MW), aggregating to 11792.50 MW are under construction in the country. The State-wise details of such projects are furnished at Annex-I.

(b) to (d) : The above hydro projects are delayed due to various reasons viz. Land acquisition issues, Environment & Forest issues, Rehabilitation & Resettlement (R&R) issues, Natural calamities, Law & Order problems, Local issues, Contractual problems, Geological uncertainties, difficult terrain & poor accessibility, funds constraints, Inter State issues, etc. It is not possible to fix any time limit for completion of these projects for the same reasons. Non completion of the projects in time causes cost overrun due to general price escalation and increase in Interest During Construction (IDC). The state-wise and project-wise details of these projects along with Cost Overrun and reasons for delay are furnished at Annex-II.

.....2.

(e) : The action taken by the Government for early completion of these projects are:

- Central Electricity Authority (CEA) monitors the progress of under construction power projects through frequent site visits and interaction with the developers and equipment suppliers. CEA holds review meetings periodically with the developers and other stakeholders to identify and resolve issues critical for commissioning of Projects.
- Regular reviews are also undertaken in Ministry of Power (MoP) to identify the constraints areas and facilitate faster resolution of inter-ministerial and other outstanding issues.
- A Power Project Monitoring Panel (PPMP) set up by the MoP, independently follows up and monitors the progress of the hydro projects.
- In case of CPSU's, the project implementation parameters / milestones are incorporated in the annual MoU signed between respective CPSU's and MoP and the same are monitored during the Quarterly Performance Review (QPR) meetings of CPSU's and other meetings held in MoP/ CEA.
- The issues related to erection and supply of Electro-Mechanical equipment is expedited in various meetings held in CEA / MoP and other local issues affecting the progress of works are taken up with respective State Governments by the Concerned CPSU / MoP.

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ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 812 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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Sl. No.	Name of Scheme (Executing Agency)	Sector	I.C. (No. x MW)	Cap. Under Execution (MW)
	Andhra Pradesh			
1	Polavaram (PPA)	State	12x80	960.00
	Sub-total: Andhra Pradesh			960.00
	Arunachal Pradesh			
2	Kameng (NEEPCO)	Central	4x150	600.00
3	Pare (NEEPCO)	Central	2x55	110.00
4	Subansiri Lower (NHPC)	Central	8x250	2000.00
5	Gongri (Dirang Energy)	Private	2x72	144.00
	Sub-total: Arunachal Pradesh			2854.00
	Himachal Pradesh			
6	Parbati St. II (NHPC)	Central	4x200	800.00
7	Uhl-III (BVPCL)	State	3x33.33	100.00
8	Sawra Kuddu (HPPCL)	State	3x37	111.00
9	Sainj (HPPCL)	State	2x50	100.00
10	Shongtong Karcham (HPPCL)	State	3x150	450.00
11	Bajoli Holi (GMR)	Private	3x60	180.00
12	Sorang (HSPCL)	Private	2x50	100.00
13	Tangnu Romai (TRPG)	Private	2x22	44.00
14	Tidong-I (NSL Tidong)	Private	100.00	100.00
15	Chanju-I (IA Energy)	Private	3x12	12.00
	Sub-total: Himachal Pradesh			1997.00
	Jammu & Kashmir			
16	Kishanganga (NHPC)	Central	3x110	330.00
17	Parnai (JKSPDC)	State	3x12.5	37.50
18	Lower Kalnai (JKSPDC)	State	2x24	48.00
19	Ratle (RHEPPL)	Private	4x205 + 1x30	850.00
	Sub-total: Jammu & Kashmir			1265.50
	Kerala			
20	Pallivasal (KSEB)	State	2x30	60.00
21	Thottiyar (KSEB)	State	1x30+1x10	40.00
	Sub-total: Kerala			100.00
	Madhya Pradesh			
22	Maheshwar (SMHPCL)	Private	10x40	400.00
	Sub-total: Madhya Pradesh			400.00
	Maharashtra			
23	Koyna Left Bank (WRD,MAH)	State	2x40	80.00
	Sub-total: Maharashtra			80.00
	Mizoram			
24	Tuirial (NEEPCO)	Central	2x30	60.00
	Sub-total: Mizoram			60.00

	Punjab			
25	Shahpurkandi (PSPCL)	State	3x33+3x33+1x8	206.00
	Sub-total: Punjab			206.00
	Sikkim			
26	Bhasmey (Gati Infrastructure)	Private	3x17	51.00
27	Rangit-IV (JAL Power)	Private	3x40	120.00
28	Rangit-II (Sikkim Hydro)	Private	2x33	66.00
29	Rongnichu (Madhya Bharat)	Private	2x48	96.00
30	Tashiding (Shiga Energy)	Private	2x48.5	97.00
31	Teesta St. VI (LANCO)	Private	4x125	500.00
32	Panan (Himagiri)	Private	4x75	300.00
	Sub-total: Sikkim			1230.00
	Telangana			
33	Pulichintala (TSGENCO)	State	4x30	90.00
	Sub-total: Telangana			90.00
	Uttarakhand			
34	Lata Tapovan (NTPC)	Central	3x57	171.00
35	Tapovan Vishnugad (NTPC)	Central	4x130	520.00
36	Tehri PSS (THDC)	Central	4x250	1000.00
37	Vishnugad Pipalkoti (THDC)	Central	4x111	444.00
38	Vyasi (UJVNL)	State	2x60	120.00
39	Phata Byung (LANCO)	Private	2x38	76.00
40	Singoli Bhatwari (L&T)	Private	3x33	99.00
	Sub-total: Uttarakhand			2430.00
	West Bengal			
41	Rammam-III (NTPC)	Central	3x40	120.00
	Sub-total: West Bengal			120.00
	Total:			11792.50

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ANNEX REFERRED TO IN REPLY TO PARTS (b) to (d) OF UNSTARRED QUESTION NO. 812 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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DETAILS OF UNDER CONSTRUCTION HYDRO ELECTRIC PROJECTS (ABOVE 25 MW)  
HAVING TIME/COST OVERRUN

As on 30.06.2017

Sl. No	Project Name/(I.C.)/ Executing Agency	Sector	Unit No.	Cap. (MW)	Org. Comm. Sched.	Org. Cost (Rs. in Crores)	Ant. Cost (Rs. in Crores)	Cost over run (Rs. in Crores)	Reasons for time and cost over run
1	2	3	4	5	6	9	10	11	12
	Andhra Pradesh								
1	Polavaram (12x80 = 960 MW) PPA	State	1 2 3 4 5 6 7 8 9 10 11 12	80 80 80 80 80 80 80 80 80 80 80 80	2017-18 2017-18 2017-18 2017-18 2017-18 2017-18 2017-18 2017-18 2017-18 2017-18 2017-18 2017-18	4956.39 (2016-17 PL) (Power Component)	4956.39 (2016-17 PL) (Power Component)	Nil	<ul style="list-style-type: none"> <li>➤ Slow progress of works</li> <li>➤ Funds constraints</li> <li>➤ E&amp;M works yet to be awarded</li> </ul>
	Arunachal Pradesh								
2	Kameng (4x150 = 600 MW) NEEPCO	Central	1 2 3 4	150 150 150 150	2009-10 2009-10 2009-10 2009-10 (Dec'09)	2496.90 (03/04)	6179.96	3683.06	<ul style="list-style-type: none"> <li>➤ Change in dam parameters.</li> <li>➤ Slow progress in dam &amp; HRT due to bad geology, heavy seepage, inadequate machinery.</li> <li>➤ Flash flood in Oct. 2008 and Sept. 2012.</li> <li>➤ Ingress of water in HRT.</li> <li>➤ Poor approach roads.</li> <li>➤ Contractual issues.</li> <li>➤ Shortage of aggregate.</li> <li>➤ Clearance for quarry from State Govt.</li> <li>➤ Slow Progress of works.</li> </ul>
3	Pare (2x55 = 110 MW) NEEPCO	Central	1 2	55 55	2012-13 2012-13 (Aug'12)	573.99 (06/07)	1339.57 (01/16)	765.58	<ul style="list-style-type: none"> <li>➤ Law &amp; Order problem.</li> <li>➤ Poor geology.</li> <li>➤ Poor approach roads.</li> <li>➤ Flash flood during Jun-Sep -2015. Dam area inundated with water, Concreting of Dam effected for 04 months.</li> </ul>

4	Subansiri Lower (8x250 = 2000 MW) NHPC	Central	1 2 3 4 5 6 7 8	250 250 250 250 250 250 250 250	2009-11 2009-11 2009-11 2009-11 2009-11 2009-11 2009-11 2009-11	6285.33 (12/02)	17435.15 (02/16)	11149.82	<ul style="list-style-type: none"> <li>➤ Delay in transfer of forest land.</li> <li>➤ Disruption of works by locals in Ar. Pradesh side.</li> <li>➤ Slope failure in Power House in Jan, 2008.</li> <li>➤ Damage to bridge on Ranganadi river.</li> <li>➤ Change in design of surge shafts to surge tunnels.</li> <li>➤ Stoppage of works due to agitation launched by Anti Dam activists in Assam against construction of Project. Work stopped since 16.12.2011.</li> <li>➤ Issue of D/s impact studies.</li> <li>➤ Case in NGT.</li> </ul>
5	Gongri 2x72= 144 MW Dirang Energy (P)Ltd	Private	1 2	72 72	2017-18 2017-18	1436.27 (05/12)	1535.91 (10/16)	99.64	<ul style="list-style-type: none"> <li>➤ Works awarded on 22.11.2011. However, consent to establish from State Pollution Control Board was issued on 19-5-14.</li> <li>➤ Financial constraints with the developer.</li> </ul>
Himachal Pradesh									
6	Parbati - II (4x200 = 800 MW) NHPC	Central	1 2 3 4	200 200 200 200	2009-10 2009-10 2009-10 2009-10 (Sept'09)	3919.59 (12/01)	8398.75 (03/15)	4479.16	<ul style="list-style-type: none"> <li>➤ Hon'ble High Court of Himachal Pradesh ban on stone crusher operation.</li> <li>➤ Delay in revised forest clearance.</li> <li>➤ TBM suffered extensive damage due to heavy ingress of water and slush in TBM face in Nov, 2006.</li> <li>➤ Slide in Power House area in Apr-04, Jun-06 and Feb-07.</li> <li>➤ Flash flood in 2004,2005,2010 and 2011.</li> <li>➤ Jiwa Nallah works affected due to cavity treatment.</li> <li>➤ Contractual issues.</li> <li>➤ Poor geology in HRT.</li> </ul>

7	Uhi-III (3x33.33 = 100 MW) BVPCL	State	1 2 3	33.33 33.33 33.33	2006-07 2006-07 2006-07	431.56 (09/02)	940.84 (03/08)	509.28	<ul style="list-style-type: none"> <li>➤ Delay in transfer of forest land.</li> <li>➤ Delay in acquisition of private land</li> <li>➤ Delay in transfer of quarry sites.</li> <li>➤ Delay in award of works.</li> <li>➤ Contract for construction of HRT rescinded twice i.e. during April, 2008 &amp; July, 2010 due to slow progress and non-performance by the contractor.</li> <li>➤ Poor geology in HRT.</li> </ul>
8	Sawra Kuddu (3x37 = 111MW) HPPCL,	State	1 2 3	37 37 37	2010-11 2010-11 2010-11	558.53 (03/03)	1181.90 (03/12)	623.37	<ul style="list-style-type: none"> <li>➤ Delay in MOEF clearance.</li> <li>➤ Delay in award of Civil &amp; E&amp;M works.</li> <li>➤ Poor geology in HRT.</li> <li>➤ Slow progress of HRT Lining.</li> <li>➤ Contractual issues.</li> <li>➤ Contract for HRT package terminated on 9.1.14. Re-awarded in Nov,2014 to M/s. HCC.</li> </ul>
9	Sainj (2x50 = 100 MW) HPPCL	State	1 2	50 50	2014-15 2014-15	784.56	Under Revision	-	<ul style="list-style-type: none"> <li>➤ Slow progress of HRT and Barrage works</li> <li>➤ Local issues</li> <li>➤ Cash flow problem with Contractor.</li> <li>➤ Contractual issues.</li> <li>➤</li> </ul>
10	Shongtom Karcham (3x150 = 450 MW) HPPCL 16.08.2012	State	1 2 3	150 150 150	2017-18 2017-18 2017-18	2807.83	3316.35	508.52	<ul style="list-style-type: none"> <li>➤ Shifting of Army Ammunition Depot.</li> <li>➤ Local Issues.</li> </ul>
11	Bajoli Holi 3x60= 180 MW M/s GMR Bajoli Holi	Private	1 2 3	60 60 60	2017-18 2017-18 2017-18	1696.93	2205.00	508.07	<ul style="list-style-type: none"> <li>➤ Slow progress of works.</li> </ul>
12	Sorang (2x50 = 100 MW), HSPPL	Private	1 2	50 50	2012-13 2012-13	586.00 (2006)	586.00 (Under revision)	-	<ul style="list-style-type: none"> <li>➤ Poor geology.</li> <li>➤ Poor weather conditions, difficult &amp; poor accessibility.</li> <li>➤ Penstock cracks / leakage during filling of Water conductor System in Nov '13.</li> <li>➤ Rupture in surface penstock in Nov-15 during trial run.</li> <li>➤ Funds constraints with developer.</li> </ul>

13	Tangnu Romai-I (2x22 = 44 MW) TRPGPL	Private	1 2	22 22	2014-15 2014-15	255.00 (2006)	562.97 (01/17)	307.97	<ul style="list-style-type: none"> <li>➤ Slow progress of civil works.</li> <li>➤ Poor geology.</li> <li>➤ Difficult area.</li> <li>➤ Weather conditions &amp; accessibility.</li> <li>➤ Financial constraints with the developer.</li> </ul>
14	Tidong-I 2x50 =100 MW NSL Tidong	Private	1 2	50 50	2013-14 2013-14	543.15 (08/05)	1286.27 (01/17)	743.12	<ul style="list-style-type: none"> <li>➤ Delay in NOC by Projects affected Panchayats.</li> <li>➤ Suspension of works by Govt.for one year.</li> <li>➤ Funds constraints with the developer</li> </ul>
15	Chanju-I 3x12=36 IA Energy	Private	1 2 3	12 12 12	2014-15 2014-15 2014-15	295.09	295.09	Nil	<ul style="list-style-type: none"> <li>➤ Slow progress of works</li> <li>➤ Poor geology</li> </ul>
	Jammu & Kashmir								
16	Kishanganga (3x110 = 330 MW) NHPC	Central	1 2 3	110 110 110	2014-15 2014-15 2014-15 (July'14)	2238.67 (11/05)	5783.17 (09/15)	3544.50	<ul style="list-style-type: none"> <li>➤ Approval of RCE as L-1 price bid was more than cost estimate. RCE approved in Jan.-2009.</li> <li>➤ Heavy Rainfall in March, 2011.</li> <li>➤ Cavity in HRT - TBM portion.</li> <li>➤ Poor geology in Access tunnel.</li> <li>➤ Dam works affected due to arbitration proceedings at International Court of Arbitration.</li> <li>➤ Local people demanding Employment in NHPC.</li> <li>➤ R&amp;R Issues.</li> <li>➤ Completion of power evacuation arrangement (PGCIL)</li> <li>➤ Stoppage of works in Power House area since 09.07.2016 due to disturbance in Kashmir valley. Works partially resumed in Jan 2017.</li> </ul>
17	Parnai 3x12.5= 37.5 MW JKSPDC	State	1 2 3	12.5 12.5 12.5	2018-19 2018-19 2018-19	640.41	640.41	Nil	<ul style="list-style-type: none"> <li>➤ Slow progress of works.</li> <li>➤ Delay in Land acquisition.</li> </ul>

18	Lower Kalnai 2x24= 48 MW JKSPDC	State	1 2	24 24	2017-18 2017-18	576.87 (12/12)	576.87 (12/12)	Nil	<ul style="list-style-type: none"> <li>➤ Inadequate mobilization of man &amp; machinery by Contractor.</li> <li>➤ Delany in finalization of R&amp;R Plan.</li> <li>➤ Slow progress of works.</li> <li>➤ Funds constraints with contractor. Contractor under CDR.</li> </ul>
19	Ratle (4x205+1x30) = 850 MW Ratle HEP Pvt .Ltd.	Private	1 2 3 4 5	205 205 205 205 30	2017-18 2017-18 2017-18 2017-18 2017-18	5517.02 (03/12)	6257.00 (09/2013)	739.98	<ul style="list-style-type: none"> <li>➤ Slow progress of works.</li> <li>➤ Works suspended since 11.7.14 due to frequent local disturbance.</li> <li>➤ Developer wants to surrender the Project to State Govt.</li> </ul>
Kerala									
20	Pallivasal 2x30 = 60 MW KSEB	State	1 2	30 30	2010-11 2010-11	222.00 (1999)	284.69 (2007)	62.69	<ul style="list-style-type: none"> <li>➤ Slow progress of civil works.</li> <li>➤ Delay in land acquisition.</li> <li>➤ Change in alignment of Adit to HRT.</li> <li>➤ Poor geology strata in HRT.</li> <li>➤ Heavy Monsoon</li> <li>➤ Works stopped by contractor since 28.1.15 due to contractual issues.</li> </ul>
21	Thottiyar (1x30+1x10)= 40MW KSEB	State	1 2	30 10	2012-13 2012-13	136.79 (2007)	150.02 (2007)	13.23	<ul style="list-style-type: none"> <li>➤ Land acquisition issue.</li> <li>➤ The works of weir and approach channel stopped from 2010 to 2012 by local people.</li> <li>➤ The work stopped by Court from 12.12.2012 to April-2013.</li> <li>➤ Contractual issues.</li> <li>➤ Financial crunch with contractor.</li> </ul>
Madhya Pradesh									
22	Maheshwar (10x40 = 400 MW) SMHPCL	Private	1 2 3 4 5 6 7 8 9 10	40 40 40 40 40 40 40 40 40 40	2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 2001-02	1569.27 (96-97)	6793.00	5223.73	<ul style="list-style-type: none"> <li>➤ R&amp;R issues</li> <li>➤ Cash flow problem with developer</li> </ul>

Maharashtra									
23	Koyna Left Bank PSS 2x40 = 80 MW WRD, Maha	State	1 2	40	2017-18	245.02 (1999)	1494.94 (2014)	1249.92	<ul style="list-style-type: none"> <li>➤ Slow progress of works.</li> <li>➤ Fund constraints due to increase in project cost. RCE under approval.</li> </ul>
Mizoram									
24	Tuirial (2x30 = 60 MW) NEEPCO	Central	1 2	30 30	2006-07 2006-07  (July'06) (Jan'14) RCE-I	368.72 (06/97)	1329.43 (12/14)	960.71	<ul style="list-style-type: none"> <li>➤ Works suspended earlier due to local agitation for about 7 yrs. (June-2004 to Jan-2011). As a result Revised approval (RCE-I) accorded in Jan. 2011.</li> <li>➤ Poor approach roads.</li> <li>➤ Slope failure in Power House.</li> <li>➤ Inadequate mobilization by contractor.</li> <li>➤ Late mobilization of erection contractor for E&amp;M works.</li> </ul>
Punjab									
25	Shahpurkandi 3x33+3x33+1x8 =206 MW, Irrigation Deptt. &PSPCL	State	1 2 3 4 5 6 7	33 33 33 33 33 33 8	2017-18 2017-18 2017-18 2017-18 2017-18 2017-18 2017-18	2285.81 (04/08)	2285.81 (04/08)	Nil	<ul style="list-style-type: none"> <li>➤ Works of Dam stopped since 29.08.2014 due to inter-state dispute between states of J&amp;K &amp; Punjab on sharing of waters of river Ravi and Tariff.</li> </ul>
Sikkim									
26	Bhasmey (2x25.5 =51 MW) Gati Infrastructure	Private	1 2	25.5 25.5	2012-13 2012-13	408.50	690.30	281.80	<ul style="list-style-type: none"> <li>➤ Forest clearance</li> <li>➤ Financial constraints with developer</li> </ul>
27	Rangit-IV HE Project (3X40 = 120 MW) JPCL	Private	1 2 3	40 40 40	2011-12 2011-12 2011-12	726.17 (09/07)	1692.60 (06/16)	966.43	<ul style="list-style-type: none"> <li>➤ Slow progress of HRT &amp; Surge Shaft works due to poor geology.</li> <li>➤ Works hampered due to earthquake in September, 2011.</li> <li>➤ Financial constraints with developer</li> </ul>
28	Rangit-II 2x33= 66 MW Sikkim Hydro Power Ltd.	Private	1 2	33 33	2017-18 2017-18	496.44	496.44	Nil	<ul style="list-style-type: none"> <li>➤ Slow progress of works.</li> <li>➤ Financial constraints with the developer.</li> </ul>
29	Rongnichu (2x48 =96 MW) Madhya Bharat Pvt. Ltd.	Private	1 2	48 48	2015-16 2015-16	491.32	1187	695.68	<ul style="list-style-type: none"> <li>➤ Land Acquisition</li> <li>➤ Poor geology.</li> </ul>
30	Tashiding 2x48.5=97 MW Shiga Energy Pvt Ltd.	Private	1 2	48.5 48.5	2015-16 2015-16	465.95	465.95	Nil	<ul style="list-style-type: none"> <li>➤ Poor geology</li> <li>➤ Local issues</li> </ul>

31	Teesta Stage VI (4x125 = 500 MW) Lanco Energy Pvt. Ltd.	Private	1 2 3 4	125 125 125 125	2012-13 2012-13 2012-13 2012-13	3283.08 (2008)	7542.00 (12/16)	4258.92	<ul style="list-style-type: none"> <li>➤ Poor geology.</li> <li>➤ Land acquisition.</li> <li>➤ Contractual issues</li> <li>➤ Funds constraints with developer</li> </ul>
32	Panan 4x75= 300 MW Himagiri Hydro Energy Pvt. Ltd.	Private	1 2 3 4	75 75 75 75	2018-19 2018-19 2018-19 2018-19	1833.05 (2009)	2400.00 (09/16)	566.95	<ul style="list-style-type: none"> <li>➤ Clearance from NWLB received in December, 2015.</li> <li>➤ Clearance from NGT.</li> </ul>
Telangana									
33	Pulichintala (4x30 = 120 MW) TGENCO	State	1 2 3 4	30 30 30 30	2009-11 2009-11 2009-11 2009-11	380.00 (2006-07)	563.49	183.49	<ul style="list-style-type: none"> <li>➤ Delay in award of E&amp;M works.</li> <li>➤ Unprecedented floods in Oct.2009 &amp; Sept.2011.</li> <li>➤ Contractual issues.</li> <li>➤ Slow progress of Power House works.</li> <li>➤ Delay in Commission due to non-availability of water.</li> </ul>
Uttarakhand									
34	Lata Tapovan (3x57 = 171 MW) NTPC	Central	1 2 3	57 57 57	2017-18 2017-18 2017-18 (Aug'17)	1527.00 (12/06)	1801.07 (12/13)	274.07	<ul style="list-style-type: none"> <li>➤ Flash flood during June, 2013 in Uttarakhand.</li> <li>➤ Local issues / non-start of works in Barrage area</li> <li>➤ Hon'ble Supreme court ban on construction works since May-14..</li> </ul>
35	Tapovan Vishnughad (4x130 = 520 MW) NTPC	Central	1 2 3 4	130 130 130 130	2012-13 2012-13 2012-13 2012-13 (Mar'13)	2978.48 (11/06)	3846.30 (01/14)	867.82	<ul style="list-style-type: none"> <li>➤ Heavy water ingress due to bad geology in HRT and rock fall on TBM. TBM struck up thrice.</li> <li>➤ Flash flood in June, 2013 &amp; Aug'12 damaging coffer dam.</li> <li>➤ Termination of civil contracts for Barrage and HRT.</li> </ul>
36	Tehri PSS (4x250 = 1000 MW) THDC	Central	1 2 3 4	250 250 250 250	2010-11 2010-11 2010-11 2010-11 (July'10)	1657.60 (Dec-05)	2978.86	1321.26	<ul style="list-style-type: none"> <li>➤ Approval of RCE as L-1 price bid was more than cost estimate. RCE approved in Nov-2011.</li> <li>➤ Cash flow problem with contractor.</li> <li>➤ Litigation by bidders.</li> <li>➤ Poor geology.</li> <li>➤ Local agitation at Asena Quarry.</li> <li>➤ Agitation at muck disposal area.</li> <li>➤ Poor preparedness of contractor.</li> <li>➤ Revision of Lay out of machine hall due to poor geology.</li> </ul>

37	Vishnugad Pipalkoti (4x111 = 444 MW) THDC	Central	1	111	2013-14	2491.58 (03/08)	2491.58 (03/08)	Nil	<ul style="list-style-type: none"> <li>➤ CCEA approval in Aug-2008 but works could not be awarded due to Forest clearance/diversion of forest land. Forest land was acquired in January-14 and subsequently works awarded in January-2014.</li> <li>➤ Disruption of works by local people.</li> <li>➤ Cash flow problem with contractor.</li> </ul>
			2	111	2013-14				
			3	111	2013-14				
			4	111	2013-14 (Jun'13)				
38	Vyasi 2x60=120 MW, UJVNL	State	1	60	2014-15	936.23	936.23	Nil	<ul style="list-style-type: none"> <li>➤ Delay in award of works.</li> <li>➤ Local Issues.</li> </ul>
39	Phata Byung (2x38 = 76 MW), LANCO	Private	1	38	2013-14	520.00	1225.53	705.53	<ul style="list-style-type: none"> <li>➤ Flash flood in June,2013.</li> <li>➤ Poor geology in HRT.</li> </ul>
40	Singoli Bhatwari (3x33 = 99 MW) L&T	Private	1	33	2012-13	666.47 (2008)	1577 (2008)	910.53	<ul style="list-style-type: none"> <li>➤ Poor geology in HRT.</li> <li>➤ Agitation by local people.</li> <li>➤ Flash flood in June,2013.</li> </ul>
2	33	2012-13							
3	33	2012-13							
West Bengal									
41	Rammam-III (3x40= 120 MW)	Central	1	40	2019-20	1381.84	1592.34	210.50	<ul style="list-style-type: none"> <li>➤ Delay in getting permission for tree felling from Govt. of West Bengal for Access road from Adit-1 to Adit-2.</li> </ul>
2	40	2019-20							
3	40	2019-20							

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.814  
ANSWERED ON 20.07.2017

HYDRO POWER POLICY

814. SHRI MALYADRI SRIRAM:

Will the Minister of POWER  
be pleased to state:

- (a) whether the Ministry of Power is likely to take up the hydro Power policy which aims to set an ambitious target of adding 175 MW of renewable energy capacity by 2022 which includes hydropower;
- (b) if so, the details of the policy and funding pattern to achieve the target;
- (c) whether the Ministry will provide any subvention during construction after the start of commercial operation in this regard; and
- (d) if so, the details thereof and if not, the reasons therefor?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) to (d) : Ministry of Power has prepared a draft proposal on New Hydro Policy 2017 for revival of Hydro Power Sector. The proposal inter-alia seeks to declare all hydro power as renewable energy, irrespective of its size; Hydro Power Obligation benefit to projects attaining COD within specified period; interest subvention during construction/post commissioning with funding pattern on grant basis.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.820  
ANSWERED ON 20.07.2017

CHALLENGES OF ELECTRIFICATION OF VILLAGES

820. SHRI GAURAV GOGOI:  
SHRI JYOTIRADITYA M. SCINDIA:

Will the Minister of POWER  
be pleased to state:

- (a) whether the Union Government has given guidelines/directions to various States/UTs to combat various challenges of rural electrification;
- (b) if so, the details thereof;
- (c) whether the targets of rural electrification have been achieved in all the States during the last three years;
- (d) if not, the reasons therefor;
- (e) the number of villages and households in each State that remained un-electrified as on 30 June, 2017; and
- (f) the steps taken by the Union Government to ensure proper rural electrification in all the villages and households across the country?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) & (b) : Government of India has launched Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) to address the challenges of rural electrification.

Apart from implementation of village electrification, the scheme includes feeder separation, augmentation and strengthening of sub-transmission and distribution system. It also envisages close monitoring at Central level through inter-Ministerial Monitoring Committee, at State Level Standing Committee (SLSC), headed by Chief Secretary and at the District level, through DISHA.

(c) & (d) : Under DDUGJY, most of the targets for electrification of villages have been achieved during the last three years except in some of the States due to delay in forest & railway clearances, land acquisition for 33/11 KV sub-stations, Right of Way (RoW) issues, providing BPL lists, law & order issues including naxal problem and difficult terrain in some of the States.

(e) & (f) As per information provided by the States, as on 30.06.2017, there are 3,618 un-electrified census villages. The State-wise details are furnished at Annexure-I. As per Census 2011, there were 7.50 crore un-electrified rural households. Under RE component of DDUGJY 2.63 crore BPL Households have been electrified till 30.06.2017. The details of the same are furnished at Annexure-II.

In addition to details given in parts (a) and (b) above, Government of India has also taken up a joint initiative with all States/UTs for State specific documents for providing 24x7 power supply to all households/homes.

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ANNEXURE REFERRED TO IN REPLY TO PARTS (e) & (f) OF UNSTARRED QUESTION NO. 820 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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State-wise details of un-electrified villages

Sl. No.	States	No. of Un-electrified villages
1	Arunachal Pradesh	1212
2	Assam	480
3	Bihar	263
4	Chhattisgarh	280
5	Jammu & Kashmir	102
6	Jharkhand	481
7	Karnataka	11
8	Madhya Pradesh	47
9	Manipur	66
10	Meghalaya	168
11	Mizoram	12
12	Odisha	434
13	Rajasthan	1
14	Uttar Pradesh	6
15	Uttarakhand	51
16	West Bengal	4
Total		3618

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ANNEXURE REFERRED TO IN REPLY TO PARTS (e) & (f) OF UNSTARRED QUESTION NO. 820 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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Free electricity connections released to BPL HHs under  
RE Component of DDUGJY

Sl. No.	Name of State	Free electricity connections released to BPL HHs (Nos.)
1	Andhra Pradesh	2648777
2	Arunachal Pradesh	51621
3	Assam	1210211
4	Bihar	4339872
5	Chhattisgarh	1149542
6	Gujarat	843104
7	Haryana	198580
8	Himachal Pradesh	16290
9	J&K	69148
10	Jharkhand	1277605
11	Karnataka	987629
12	Kerala	150305
13	Madhya Pradesh	1803951
14	Maharashtra	1221350
15	Manipur	70187
16	Meghalaya	104457
17	Mizoram	29710
18	Nagaland	54484
19	Odisha	2845434
20	Punjab	92988
21	Rajasthan	1227216
22	Sikkim	13601
23	Tamil Nadu	502394
24	Telangana	708865
25	Tripura	148368
26	Uttar Pradesh	2110609
27	Uttarakhand	237921
28	West Bengal	2211040
	Total	26325259

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.848  
ANSWERED ON 20.07.2017

POWER GENERATION

†848. PROF. PREM SINGH CHANDUMAJRA:

Will the Minister of POWER  
be pleased to state:

- (a) whether electricity is being generated in hydro power sector in the country;
- (b) if so, the average electricity generation capacity of this sector during the years 2014 to 2016;
- (c) whether the actual electricity generation was less than the installed capacity; and
- (d) if so, the average rate of actual electricity 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) & (b) : Yes, Madam. The average electricity generation capacity of hydro power sector during the years 2014-15 to 2016-17 is given below:

Year	Installed Capacity (MW)
2014-15	41267.42
2015-16	42783.42
2016-17	44478.42

(c) & (d) : The actual electricity generation for the year 2014-15 was more than the generation target for the corresponding year whereas for the years 2015-16 and 2016-17, the actual electricity generation was less than the targeted generation in view of the drought conditions in several part of India. The details of electricity generation from hydro power stations during the years 2014-15 to 2016-17 is given below:

Year	Generation Target (MU)	Achieved (MU/ % of Target)
2014-15	124297	129243.68/103.98
2015-16	128000	121376.75/94.83
2016-17	134000	122377.56/91.33

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.858  
ANSWERED ON 20.07.2017

GAS BASED POWER PLANTS

858. SHRI J.C. DIVAKAR REDDY:

Will the Minister of POWER  
be pleased to state:

- (a) whether the Government is encouraging gas based power plants in the country;
- (b) if so, the details thereof during each of the last three years and the current year; and
- (c) whether demands have been received from various States in this regard and if so, the details thereof and the action taken so far?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) : No, Madam.

(b) : In view of the reply (a) above, question doesn't arise.

(c) : Central Electricity Authority has received a number of proposals from various State Governments for allocation of gas for setting up new gas based power plants. The details of proposals received from the State Governments are enclosed as Annex. However, due to drastic reduction in gas production, none of the new projects could be allocated gas.

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ANNEX REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 858 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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Proposal received in CEA from States for allocation of gas

Sl No.	Name of Power Station /Agency	STATUS (Expansion/Greenfield)	Capacity (MW)	Located in State
1	Karim Nagar CCGT by APPDCL	Greenfield	2100	AP
2	Pragati -III CCGT (Bamnauli) by PPCL	Greenfield	750	Delhi
3	CCPP at Hazira by GSEG	Expansion	350	Gujarat
4	Pipavav CCGT by GSPC	Expansion	351	Gujarat
5	Dhuvaran CCPP - III by GSECL	Expansion	395	Gujarat
6	Maniyari CCGT ( near Patan) by GSECL	Greenfield	1200	Gujarat
7	Faridabad CCGT by M/s HPGCL	Greenfield	1500	Haryana
8	Bidadi CCGT by KPCL	Greenfield	1400	Karnataka
9	Tadadi CCGT by KPCL	Greenfield	2100	Karnataka
10	Brahampuram CCGT by KSEB	Greenfield	400	Kerala
11	Cheemeni CCGT by KSIDC	Greenfield	1200	Kerala
12	Uran CCGT by MAHAGENCO	Expansion	1220	Maharashtra
13	Ropar CCGT by PSPCL	Existing coal plant expansion to Gas	1000	Punjab
14	Chabra CCPP by RRVUNL	Greenfield	330	Rajasthan
15	Dholpur CCPP by RRVUNL	Expansion	330	Rajasthan
16	Kota CCPP by RRVUNL	Greenfield	330	Rajasthan
17	Keshorai Patan CCGT by RRVUNL	Green Field	1000	Rajasthan
18	Jahangirpur Gas Project by UPCL	Greenfield	1200	UP
19	Gautambudh Nagar Gas Power Project by UPPCL	Greenfield	1600	UP
20	Yamuna Expressway Power Project by UPPCL	Greenfield	2000	UP
21	CCGT BY Puducherry Power Corporation Ltd (PPCL)	Green field	350	UT of Puducherry

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.864  
ANSWERED ON 20.07.2017

POWER DEMAND BY 2020

864. SHRI KESINENI NANI:

Will the Minister of POWER  
be pleased to state:

- (a) the number of power plants across the country currently under development, State-wise;
- (b) the expected power demand in the country by 2020;
- (c) whether the country has enough power generation to meet the requirements;
- (d) whether the country is currently importing electricity from other countries, if so, the details thereof;
- (e) the details of power deficit States in the country; and
- (f) the steps being taken by the Government to improve the power generation in the country?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) : The details of power plants that are under construction (State-wise) are given at Annex-I.

(b) : As per the 19<sup>th</sup> Electric Power Survey (EPS) Report, the projected electrical energy requirement and peak electricity demand (utilities) on all India basis in the year 2019-20 is 1400 BU and 2,00,696 MW, respectively.

(c) & (d) : There is enough power generation capacity available in the Country to meet the requirements. The country is importing power from Bhutan and at the same time exporting power to Bangladesh, Nepal and Myanmar. The details of import and export of power are as under:

(In MU)

Year	Import	Export			Net Export
	Bhutan	Bangladesh	Nepal	Myanmar	
2017-18 (upto May, 2017)	526	858	447	0.8	780
2016-17	5,864	4,420	2,021	3	580

(e) & (f) : At present, enough generation capacity is available to meet the electricity demand of the country. However, there could be demand supply gap which is on account of factors other than non-availability of power in the country. The Power Supply Position in terms of energy requirement and peak demand during last year (2016-17) and during current year 2017-18 (upto June'17) are furnished at Annex-II.

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ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 864 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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Details of Under Construction Power Projects in the country					
Sl. No	State	Project Name	Fuel	Unit	Capacity (In MW)
1	Arunachal Pradesh	Gongri	Hydro	U-1 to	144
		2x72= 144 MW		U-2	
2	Arunachal Pradesh	Subansiri Lower	Hydro	U-1 to	2000
		8x250= 2000 MW		U-8	
3	Arunachal Pradesh	Kameng	Hydro	U-1 to	600
		4x150= 600 MW		U-4	
4	Arunachal Pradesh	Pare	Hydro	U-1 to	110
		2x55= 110 MW		U-2	
					2854
5	Assam	Namrup CCGT	Thermal	ST	36.15
6	Assam	Bongaigaon TPP	Thermal	U-3	250
					286.15
7	Andhra Pradesh	Dr.Narla Tata Rao TPS St-V	Thermal	U-1	800
8	Andhra Pradesh	Sri Damodaran Sanjeevaiah TPP St-II	Thermal	U-1	800
9	Andhra Pradesh	Royalaseema TPP St-IV	Thermal	U-6	600
10	Andhra Pradesh	Bhavanapadu TPP Ph-I	Thermal	U-1	660
11	Andhra Pradesh			U-2	660
12	Andhra Pradesh	Thamminapatnam TPP stage -II	Thermal	U-3	350
13	Andhra Pradesh			U-4	350
14	Andhra Pradesh	Polavaram	Hydro	U-1 to	960
		12x80= 960 MW		U-12	
					5180
15	Bihar	Barauni TPS Extn.	Thermal	U-8	250
				U-9	250
16	Bihar	Siriya TPP (Jas Infra. TPP)	Thermal	U-1	660
				U-2	660
				U-3	660
				U-4	660
17	Bihar	Barh STPP-I	Thermal	U-1	660
				U-2	660
				U-3	660
18	Bihar	Nabi Nagar TPP	Thermal	U-3	250
				U-4	250
19	Bihar	New Nabi Nagar TPP	Thermal	U-1	660
				U-2	660
				U-3	660
					7600
20	Chhattisgarh	Lara TPP	Thermal	U-1	800
				U-2	800
21	Chhattisgarh	Akaltara TPP (Naiyara)	Thermal	U-3	600
				U-4	600
				U-5	600
				U-6	600
22	Chhattisgarh	Binjkote TPP	Thermal	U-2	300
				U-3	300
				U-4	300
23	Chhattisgarh	Lanco Amarkantak TPP-II	Thermal	U-3	660
				U-4	660
24	Chhattisgarh	Singhitarai TPP	Thermal	U-1	600
				U-2	600
25	Chhattisgarh	Uchpinda TPP	Thermal	U-3	360
				U-4	360

26	Chhattisgarh	Salora TPP	Thermal	U-2	135
27	Chhattisgarh	Deveri (Visa) TPP	Thermal	U-1	600
					8875
28	Gujarat	Wanakbori TPS Extn.	Thermal	U-8	800
29	Gujarat	KAPP	Nuclear		1400
					2200
30	Jammu and Kashmir	Kishanganga 3x110= 330 MW	Hydro	U-1 to U-3	330
31	Jammu and Kashmir	Parnai 3x12.5= 37.5 MW	Hydro	U-1 to U-3	37.5
32	Jammu and Kashmir	Lower Kalnai 2x24= 48 MW	Hydro	U-1 to U-2	48
33	Jammu and Kashmir	Ratle 4x205+1x30= 850 MW	Hydro	U-1 to U-5	850
					1265.5
34	Jharkhand	North Karanpura TPP	Thermal	U-1 U-2 U-3	660 660 660
35	Jharkhand	Matrishri Usha TPP Ph-I	Thermal	U-1 U-2	270 270
36	Jharkhand	Matrishri Usha TPP Ph-II	Thermal	U-3 U-4	270 270
37	Jharkhand	Tori TPP Ph-I	Thermal	U-1 U-2	600 600
38	Jharkhand	Tori TPP Ph-II	Thermal	U-3	600
					4860
39	Himachal Pradesh	Uhl-III 3x33.33= 100 MW	Hydro	U-1 to U-3	100
40	Himachal Pradesh	Sainj 2x50=100 MW	Hydro	U- 1 & U- 2	100
41	Himachal Pradesh	Sawra Kuddu 3x37= 111 MW	Hydro	U-1 to U-3	111
42	Himachal Pradesh	Shongtong Karcham 3x150= 450 MW	Hydro	U-1 to U-3	450
43	Himachal Pradesh	Parbati St. II 4x200= 800 MW	Hydro	U-1 to U-4	800
44	Himachal Pradesh	Sorang 2x50= 100 MW	Hydro	U-1 & U-2	100
45	Himachal Pradesh	Tangnu Romai- I 2x22= 44 MW	Hydro	U-1 to U-2	44
46	Himachal Pradesh	Bajoli Holi 3x60= 180 MW	Hydro	U-1 to U-3	180
47	Himachal Pradesh	Chanju-I 3x12= 36 MW (2 Units Comm.)	Hydro	U-3	12
48	Himachal Pradesh	Tidong-I 2x50= 100 MW	Hydro	U-1 to U-2	100
					1997
49	Karnataka	Yelahanka CCPP	Thermal	GT+ST	370
50	Karnataka	Kudgi STPP Ph-I	Thermal	U-3	800
					1170
51	Kerala	Pallivasal 2x30= 60 MW	Hydro	U-1 to U-2	60
52	Kerala	Thottiyar 1x30 + 1x10= 40 MW	Hydro	U-1 to U-2	40
					100
53	Maharashtra	Solapur STPP	Thermal	U-2	660
54	Maharashtra	Amravati TPP Ph-II	Thermal	U-1 U-2 U-3 U-4 U-5	270 270 270 270 270

55	Maharashtra	Lanco Vidarbha TPP	Thermal	U-1	660
				U-2	660
56	Maharashtra	Nasik TPP Ph-II	Thermal	U-1	270
				U-2	270
				U-3	270
				U-4	270
				U-5	270
57	Maharashtra	Bijora Ghanmukh TPP	Thermal	U-1	300
				U-2	300
58	Maharashtra	Shirpur TPP	Thermal	U-1	150
				U-2	150
59	Maharashtra	Koyna Left Bank PSS	Hydro	U-1 to	80
		2x40= 80 MW		U-2	
					5660
60	Madhya Pradesh	Shri Singhaji TPP St-II	Thermal	U-3	660
				U-4	660
61	Madhya Pradesh	Gadarwara TPP	Thermal	U-1	800
				U-2	800
62	Madhya Pradesh	Khargone TPP	Thermal	U-1	660
				U-2	660
63	Madhya Pradesh	Mahan TPP	Thermal	U-2	600
64	Madhya Pradesh	Gorgi TPP	Thermal	U-1	660
65	Madhya Pradesh	Niwari TPP	Thermal	U-2	45
66	Madhya Pradesh	Mareshwar	Hydro	U-1 to U-10	400
		10x40= 400 MW			
					5945
67	Mizoram	Tuirial	Hydro	U-1 to	60
		2x30= 60 MW		U-2	
					60
68	Odisha	Ib valley TPP	Thermal	U-3	660
				U-4	660
69	Odisha	Darlipalli STPP	Thermal	U-1	800
				U-2	800
70	Odisha	Ind Barath TPP (Odisha)	Thermal	U-2	350
71	Odisha	KVK Nilanchal TPP	Thermal	U-1	350
				U-2	350
				U-3	350
72	Odisha	Lanco Babandh TPP	Thermal	U-1	660
				U-2	660
73	Odisha	Malibrahmani TPP	Thermal	U-1	525
				U-2	525
					6690
74	Punjab	Shahpurkandi	Hydro	U-1 to	206
		3x33+3x33+1x8= 206 MW		U-7	
					206
75	Rajasthan	Chhabra TPP	Thermal	U-6	660
76	Rajasthan	Suratgarh SCTPP	Thermal	U-7	660
				U-8	660
77	Rajasthan	RAPP	Nuclear		1400
					3380
78	Sikkim	Teesta- VI	Hydro	U-1 to	500
		4x125= 500 MW		U-4	
79	Sikkim	Rangit-IV	Hydro	U-1 to	120
		3x40= 120 MW		U-3	
80	Sikkim	Bhasmey	Hydro	U-1 to	51
		2x25.5= 51 MW		U-2	
81	Sikkim	Tashiding	Hydro	U-1 to	97
		2x48.5= 97 MW		U-2	
82	Sikkim	Rangit-II	Hydro	U-1 to	66
		2x33= 66 MW		U-2	

83	Sikkim	Rongnichu	Hydro	U-1 to	96
		2x48= 96 MW		U-2	
84	Sikkim	Panan	Hydro	U-1 to	300
		4x75= 300 MW		U-4	
					1230
85	Telangana	Kothagudem TPS St-VII	Thermal	U-1	800
86	Telangana	Bhadradri TPP	Thermal	U-1	270
				U-2	270
				U-3	270
				U-4	270
87	Telangana	Telangana Ph- I	Thermal	U-1	800
				U-2	800
88	Telangana	Pulichintala	Hydro	U-2 to	90
		4x30= 120 MW (30 MW Comm.)		U-4	
					3570
89	Tamil Nadu	Ennore exp. SCTPP	Thermal	U-1	660
90	Tamil Nadu	Ennore SCTPP	Thermal	U-1	660
				U-2	660
91	Tamil Nadu	North Chennai TPP St-III	Thermal	U-1	800
92	Tamil Nadu	Uppur Super Critical TPP	Thermal	U-1	800
				U-2	800
93	Tamil Nadu	Neyveli New TPP	Thermal	U-1	500
				U-2	500
94	Tamil Nadu	Tuticorin TPP (Ind- Barath)	Thermal	U-1	660
95	Tamil Nadu	Tuticorin TPP St-IV	Thermal	U-1	525
96	Tamil Nadu	BHAVINI	Nuclear		500
					7065
97	Uttarakhand	Vyasi	Hydro	U- 1 &	120
		2X60=120 MW		U- 2	
98	Uttarakhand	Tapovan Vishnugad	Hydro	U-1 to	520
		4x130=520 MW		U-4	
99	Uttarakhand	Tehri PSS	Hydro	U-1 to	1000
		4x250= 1000 MW		U-4	
100	Uttarakhand	Lata Tapovan	Hydro	U-1 to	171
		3x57= 171 MW		U-3	
101	Uttarakhand	Vishnugad Pipalkoti	Hydro	U-1 to	444
		4x111= 444 MW		U-4	
102	Uttarakhand	Phata Byung	Hydro	U-1 to	76
		2x38= 76 MW		U-2	
103	Uttarakhand	Singoli Bhatwari	Hydro	U-1 to	99
		3x33= 99 MW		U-3	
					2430
104	Uttar Pradesh	Harduaganj TPS Exp-II	Thermal	U-1	660
105	Uttar Pradesh	Jawaharpur STPP	Thermal	U-1	660
				U-2	660
106	Uttar Pradesh	Obra-C STPP	Thermal	U-1	660
				U-2	660
107	Uttar Pradesh	Meja STPP	Thermal	U-1	660
				U-2	660
108	Uttar Pradesh	Ghatampur TPP	Thermal	U-1	660
				U-2	660
				U-3	660
109	Uttar Pradesh	Tanda TPP	Thermal	U-1	660
				U-2	660
					7920
110	West Bengal	Rammam III	Hydro	U-1 to	120
		3x40=120 MW		U-3	
111	West Bengal	India Power TPP	Thermal	U-2	150
				U-3	150
					420
					80963.65

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ANNEX REFERRED TO IN REPLY TO PARTS (e) & (f) OF UNSTARRED QUESTION NO. 864  
ANSWERED IN THE LOK SABHA ON 20.07.2017.

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### Power Supply Position for 2016-17

State / System / Region	Energy				Peak			
	April, 2016 - March, 2017				April, 2016 - March, 2017			
	Energy Requirement ( MU )	Energy Supplied ( MU )	Energy not Supplied ( MU ) ( % )		Peak Demand ( MW )	Peak Met ( MW )	Demand not Met ( MW ) ( % )	
Chandigarh	1,645	1,645	0	0	361	361	0	0
Delhi	30,829	30,797	32	0.1	6,342	6,261	81	1.3
Haryana	48,895	48,895	0	0.0	9,262	9,262	0	0.0
Himachal Pradesh	8,831	8,779	52	0.6	1,499	1,499	0	0.0
Jammu & Kashmir	17,398	14,194	3,204	18.4	2,675	2,140	535	20.0
Punjab	53,098	53,098	0	0.0	11,408	11,408	0	0.0
Rajasthan	67,838	67,415	423	0.6	10,613	10,348	265	2.5
Uttar Pradesh	107,569	105,701	1,868	1.7	17,183	16,110	1,073	6.2
Uttarakhand	13,069	12,986	83	0.6	2,037	2,037	0	0.0
Northern Region	349,172	343,513	5,659	1.6	53,372	52,612	760	1.4
Chhattisgarh	23,750	23,697	53	0.2	3,875	3,851	25	0.6
Gujarat	103,706	103,705	1	0.0	14,724	14,719	5	0.0
Madhya Pradesh	65,759	65,758	1	0.0	11,512	11,501	11	0.1
Maharashtra	139,295	139,228	67	0.0	22,516	22,207	309	1.4
Daman & Diu	2,398	2,398	0	0.0	334	334	0	0.0
Dadra Nagar Haveli	6,021	6,021	0	0.0	784	784	0	0.0
Goa	4,319	4,317	2	0.0	546	531	14	2.6
Western Region	345,247	345,127	120	0.0	48,531	48,313	218	0.4
Andhra Pradesh	54,300	54,257	43	0.1	7,969	7,965	4	0.1
Telangana	53,030	53,018	12	0.0	9,187	9,187	0	0.0
Karnataka	66,899	66,537	362	0.5	10,261	10,242	19	0.2
Kerala	24,296	24,261	35	0.1	4,132	3,996	135	3.3
Tamil Nadu	104,511	104,487	24	0.0	14,823	14,823	0	0.0
Puducherry	2,548	2,545	3	0.1	371	368	3	0.7
Lakshadweep#	48	48	0	0	8	8	0	0
Southern Region	305,588	305,106	482	0.2	42,232	42,232	0	0.0
Bihar	25,711	25,130	581	2.3	3,883	3,759	125	3.2
DVC	18,929	18,791	138	0.7	2,721	2,721	0	0.0
Jharkhand	7,960	7,906	54	0.7	1,498	1,498	0	0.0
Odisha	26,758	26,756	2	0.0	4,012	4,012	0	0.0
West Bengal	47,948	47,807	141	0.3	7,931	7,886	45	0.6
Sikkim	475	475	0	0.0	112	112	0	0.0
Andaman- Nicobar#	240	180	60	25	40	32	8	20
Eastern Region	127,783	126,867	916	0.7	18,908	18,788	120	0.6
Arunachal Pradesh	729	714	15	2.1	148	140	8	5.4
Assam	9,020	8,694	326	3.6	1,673	1,633	40	2.4
Manipur	764	740	24	3.1	163	163	0	0.2
Meghalaya	1,715	1,715	0	0.0	331	331	0	0.0
Mizoram	514	501	13	2.5	98	98	0	0.0
Nagaland	757	745	12	1.6	148	147	1	0.7
Tripura	1,644	1,621	23	1.4	284	284	0	0.0
North-Eastern Region	15,140	14,720	420	2.8	2,487	2,475	12	0.5
All India	1,142,928	1,135,332	7,596	0.7	159,542	156,934	2,608	1.6

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

### Power Supply Position for 2017-18 (Provisional)

State / System / Region	Energy				Peak			
	April, 2017 - June, 2017				April, 2017 - June, 2017			
	Energy Requirement	Energy Supplied	Energy not Supplied		Peak Demand	Peak Met	Demand not Met	
	( MU )	( MU )	( MU )	( % )	( MW )	( MW )	( MW )	( % )
Chandigarh	487	478	9	2	340	340	0	0
Delhi	9,345	9,338	7	0.1	6,553	6,526	27	0.4
Haryana	12,875	12,875	0	0.0	8,912	8,912	0	0.0
Himachal Pradesh	2,326	2,317	9	0.4	1,377	1,377	0	0.0
Jammu & Kashmir	4,597	3,669	928	20.2	2,768	2,214	554	20.0
Punjab	14,015	14,015	0	0.0	10,786	10,786	0	0.0
Rajasthan	16,829	16,723	106	0.6	10,347	10,347	0	0.0
Uttar Pradesh	31,942	31,575	367	1.1	18,827	18,061	766	4.1
Uttarakhand	3,500	3,493	7	0.2	2,027	2,027	0	0.0
Northern Region	95,915	94,481	1,434	1.5	53,382	52,429	953	1.8
Chhattisgarh	6,829	6,829	0	0.0	3,888	3,887	1	0.0
Gujarat	29,192	29,192	0	0.0	15,693	15,693	0	0.0
Madhya Pradesh	16,166	16,166	0	0.0	8,402	8,402	0	0.0
Maharashtra	40,054	40,003	51	0.1	22,542	22,494	48	0.2
Daman & Diu	630	630	0	0.0	342	342	0	0.0
Dadra Nagar Haveli	1,525	1,525	0	0.0	771	771	0	0.0
Goa	1,036	1,036	0	0.0	558	557	1	0.2
Western Region	95,433	95,382	51	0.1	49,860	49,788	72	0.1
Andhra Pradesh	14,384	14,377	7	0.0	8,024	8,000	24	0.3
Telangana	13,291	13,286	5	0.0	9,009	9,001	8	0.1
Karnataka	16,640	16,634	6	0.0	9,992	9,987	5	0.1
Kerala	6,394	6,388	6	0.1	3,889	3,862	27	0.7
Tamil Nadu	27,986	27,977	9	0.0	15,001	14,975	26	0.2
Puducherry	703	703	0	0.0	388	387	0	0.1
Lakshadweep#	12	12	0	0	8	8	0	0
Southern Region	79,399	79,365	34	0.0	42,770	42,535	235	0.5
Bihar	6,797	6,606	191	2.8	4,122	4,021	101	2.5
DVC	5,230	5,221	9	0.2	2,770	2,770	0	0.0
Jharkhand	1,969	1,962	7	0.4	1,211	1,211	0	0.0
Odisha	7,285	7,283	2	0.0	4,227	4,227	0	0.0
West Bengal	13,627	13,571	56	0.4	7,828	7,828	0	0.0
Sikkim	106	106	0	0.0	91	91	0	0.0
Andaman- Nicobar#	60	45	15	25	40	32	8	20
Eastern Region	35,015	34,751	264	0.8	19,238	19,191	47	0.2
Arunachal Pradesh	183	180	3	1.6	145	145	0	0.2
Assam	2,227	2,111	116	5.2	1,744	1,623	121	6.9
Manipur	184	181	3	1.6	163	161	2	1.2
Meghalaya	407	407	0	0.0	304	304	0	0.1
Mizoram	124	122	2	1.6	86	85	1	0.8
Nagaland	187	184	3	1.6	147	146	1	0.7
Tripura	605	592	13	2.1	280	276	4	1.4
North-Eastern Region	3,918	3,777	141	3.6	2,499	2,391	108	4.3
All India	309,680	307,755	1,925	0.6	159,816	158,393	1,423	0.9

# 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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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.865  
ANSWERED ON 20.07.2017

DEMAND FOR POWER

†865. SHRI SUBHASH CHANDRA BAHERIA:

Will the Minister of POWER  
be pleased to state:

- (a) the average annual increase in demand for power in agriculture, industrial and domestic sectors during the last three years, State/UT-wise;
- (b) whether these sectors are being given power supply according to their demand; and
- (c) if so, the details thereof and if not, the reasons therefor?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) : The average annual increase in all India energy sales (category wise) during last three years is given at Annex-I.

(b) & (c) : Electricity is a concurrent subject. It is the responsibility of the State Government to arrange power from various sources including Central Generating Stations to meet the requirement of the various categories of electricity consumers including agricultural, industrial and domestic consumers in the State. 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.

The duration of supply of power to Agricultural Consumers during last year (2016-17) and the current year (upto June, 2017), as furnished by the States, is given at Annex-II. Further, as informed by the States, there has been no notified power cut on industries during the same period.

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## ANNEX-I

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 865 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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ALL INDIA ELECTRICAL ENERGY SALES DURING LAST THREE YEARS (UTILITIES)							
Category	Energy Sold During 2015-16 (GWh)	Energy Sold During 2014-15 (GWh)	% Increase in Sale over Previous Year 2014-15	Energy Sold During 2013-14 (GWh)	% Increase in Sale over Previous Year 2013-14	Energy Sold During 2012-13 (GWh)	% Increase in Sale over Previous Year 2012-13
Domestic	238875.69	217404.72	9.88	199841.79	8.79	183700.45	8.79
Industrial Power	285696.28	284074.36	0.57	384418.28	8.83	250531.21	4.62
Agriculture	173185.37	168913.46	2.53	152744.33	10.59	147461.92	3.58

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ANNEX REFERRED TO IN REPLY TO PARTS (b) & (c) OF UNSTARRED QUESTION NO. 865 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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Power Supply to Agricultural Sector				
State/ Region	2017-18 (Upto June,2017)	2016-17	2015-16	2014-15
	Average Hours of Supply	Average Hours of Supply	Average Hours of Supply	Average Hours of Supply
Northern Region				
Chandigarh*				
Delhi	There is no agricultural load in Delhi.	There is no agricultural load in Delhi.	There is no agricultural load in Delhi.	There is no agricultural load in Delhi.
Haryana	08:00 - 09:10 hrs/day	09:03 - 11:54 hrs/day	9:56 - 11:41 hrs/day	08:35 - 11:23 hrs/day
Himachal Pradesh	HPSEBL has only 2% agriculture consumers and uninterrupted power is being supplied to agriculture sector.	HPSEBL has only 2% agriculture consumers and uninterrupted power is being supplied to agriculture sector.	HPSEBL has only 2% agriculture consumers and uninterrupted power is being supplied to agriculture sector.	HPSEBL has only 2% agriculture consumers and uninterrupted power is being supplied to agriculture sector.
Jammu & Kashmir*	-	-	-	-
Punjab	04:00 - 07:44 hrs/day	04:54 - 09:14 hrs/day	06:13 - 10:51 hrs/day	06:09 - 09:01 hrs/day
Rajasthan	06.45 hrs/day	06.45 hrs/day	06.45 hrs/day	06:30 - 06.45 hrs/day
Uttar Pradesh	18:44 - 19:47 hrs/day	13:07 - 19:05 hrs/day	09:38 - 13:38 hrs/day	07:02 - 15:48 hrs/day
Uttarakhand	22:42 - 24:00 hrs/day	23:13 - 24:00 hrs/day	19:31 - 23:55 hrs/day	18:29 - 24:00 hrs/day
Western Region				
Chhattisgarh	18 hrs/day	18 hrs/day	18 hrs/day	18 hrs/day
Gujarat	8 hours/day.	8 hours/day.	8 hours/day.	8 hours/day.
Madhya Pradesh	3 phase (irrigation): 9.31-09:46 hrs /day 3 phase (Mixed) Supply: 23:00 - 23:16 hrs /day	3 phase (Mixed) Supply: 22:53 - 23:25 hrs /day	3 phase (Mixed) Supply: 22:51 - 23:32 hrs /day	3 phase (Mixed) Supply:21:34 - 23:35 hrs /day
Maharashtra	9 hrs/day	9 -12 hrs/day	9 hrs/day	9 hrs/day
Goa	No restriction	No restriction	No restriction	No restriction
Southern Region				
Andhra Pradesh	07 hrs/day	07 hrs/day	07 hrs/day	07 hrs/day
Telangana**	09 hrs/day	09 hrs/day	07 hrs/day	07 hrs/day
Karnataka	6 hrs/day	6 hrs/day	6 hrs/day	6 hrs/day
Kerala	No Restrictions	No Restrictions	No Restrictions	No Restrictions
Tamil Nadu	9 hrs/day is ensured (6 hrs during day time and 3 hrs during night time)	9 hrs/day is ensured (6 hrs during day time and 3 hrs during night time)	9 hrs/day is ensured (6 hrs during day time and 3 hrs during night time)	9 hrs/day is ensured (6 hrs during day time and 3 hrs during night time)
Puducherry	No Restrictions	No Restrictions	No Restrictions	No Restrictions
Eastern Region				
Bihar	About 18 hrs	About 18 hrs	About 18 hrs	About 18 hrs
Jharkhand	About 20 hrs	About 20 hrs	About 20 hrs	About 20 hrs
Odisha	24 hrs	24 hrs	24 hrs	24 hrs
West Bengal	About 23 hrs	About 23 hrs	About 23 hrs	About 23 hrs
* Data not available.				
** Telangana was formed following bifurcation of erstwhile State of Andhra Pradesh into new State of Andhra Pradesh and the State of Telangana w.e.f. June, 2014.				
Note:- Based on Actual Power Supply Position report prepared by Grid Management Division , CEA, based on data submitted by State Utilities.				

Notified Power Cuts/ Restrictions on Industries								
State/ Region	2017-18 (up to June, 2017)		2016-17		2015-16		2014-15	
	Energy Cut	Demand cut	Energy Cut	Demand cut	Energy Cut	Demand cut	Energy Cut	Demand cut
<b>Northern Region</b>								
Chandigarh*								
Delhi	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Haryana	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Himachal Pradesh	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
<b>Jammu &amp; Kashmir*</b>								
Punjab	NIL	NIL	NIL	NIL	NIL	NIL	0-3.35 MU/day	NIL
Rajasthan	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Uttar Pradesh	NIL	NIL	NIL	NIL	NIL	NIL	0-2.8 MU/day	0-700 MW
Uttarakhand	NIL	NIL	NIL - 0.334MU/ day	NIL-140 MW	0.049-0.905 MU/day	140 MW	0.2510-1.228MU/ day	140 MW
<b>Western Region</b>								
Chhattisgarh	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Gujarat	NIL	NIL	All industries are allowed to run their units on all days of week and if they want to avail staggered holiday, then they have to be staggered on notified day only and cannot avail as per their choice. All industries are required to keep their recess timings staggered.	All industries are allowed to run their units on all days of week and if they want to avail staggered holiday, then they have to be staggered on notified day only and cannot avail as per their choice. All industries are required to keep their recess timings staggered.	All industries are allowed to run their units on all days of week and if they want to avail staggered holiday, then they have to be staggered on notified day only and cannot avail as per their choice. All industries are required to keep their recess timings staggered.	All industries are allowed to run their units on all days of week and if they want to avail staggered holiday, then they have to be staggered on notified day only and cannot avail as per their choice. All industries are required to keep their recess timings staggered.	All industries are allowed to run their units on all days of week and if they want to avail staggered holiday, then they have to be staggered on notified day only and cannot avail as per their choice. All industries are required to keep their recess timings staggered.	All industries are allowed to run their units on all days of week and if they want to avail staggered holiday, then they have to be staggered on notified day only and cannot avail as per their choice. All industries are required to keep their recess timings staggered.
Madhya Pradesh	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Maharashtra	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Goa	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
<b>Southern Region</b>								
Andhra Pradesh	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Telangana**	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Karnataka	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Kerala	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
Tamil Nadu	NIL	NIL	NIL	NIL	NIL	NIL	20% Cut on base Demand and Energy Consumption in respect of HT industrial and commercial consumers during day time. 90 % cut on base Demand (1800 hrs to 2200 hrs) had been imposed.	
Puducherry	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
<b>Eastern Region</b>								
Bihar	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts
Jharkhand	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts
Odisha	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts
West Bengal	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts	No Notified Cuts
* Data not received.								
** Telangana was formed due to bifurcation of Andhra Pradesh into Andhra Pradesh and Telangana w.e.f. June, 2014.								
Note:- Based on Actual Power Supply Position report prepared by Grid Management Division , CEA, based on data submitted by State Utilities.								

GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.876  
ANSWERED ON 20.07.2017

ECBC-2017

876. SHRI ADHALRAO PATIL SHIVAJIRAO:  
SHRI ANANDRAO ADSUL:  
SHRI SHRIRANG APPA BARNE:  
DR. PRITAM GOPINATH MUNDE:  
DR. SHRIKANT EKNATH SHINDE:  
SHRI DHARMENDRA YADAV:  
SHRI VINAYAK BHAURAO RAUT:

Will the Minister of POWER  
be pleased to state:

- (a) whether the Government considers that all new buildings and offices in the future be super ECBC and Net Zero Energy Buildings;
- (b) if so, the details thereof and the reasons therefor;
- (c) the Government have launched the Energy Conservation Building Code 2017 (ECBC) recently;
- (d) if so, the details thereof and the salient feature thereof along with the manner in which it become beneficial;
- (e) whether any estimate has been made to achieve the reduction of energy by 2030 by these codes, if so, the details thereof; and
- (f) whether it is estimated to achieve a 50% reduction in energy use by 2030 and if so, the details thereof?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) to (d) : The Energy Conservation Building Code (ECBC) was launched in 2007 as a voluntary code by the Bureau of Energy Efficiency for effecting energy efficiency in buildings. ECBC establishes minimum energy standards for

commercial buildings having a connected load of 100kW or contract demand of 120 KVA and above. ECBC 2017 has been launched on June 19, 2017 which includes measures for energy savings through suitable building construction parameters involving enhanced wall and roof insulation, efficient glass, efficient comfort and control system and appropriate orientation and shading. It prescribes criteria and parameters for design and construction of energy efficient buildings in 3 categories viz. (i) ECBC compliant, (ii) ECBC plus and (iii) Super ECBC. Various measures proposed in the Code can also be combined with the use of renewables to convert buildings into Net Zero Energy Building category.

At present, there is no proposal to mandate that all new buildings and offices in future to be Super ECBC and Net Zero Energy Buildings. However, all offices, sub-ordinate offices, attached offices including offices of Central Public Sector Undertakings (CPSUs) and their Joint Ventures, under the administrative control of Ministry of Power have been advised to prepare action plan for converting their owned buildings and offices into Net Zero buildings.

(e) & (f) : It is estimated that with adoption of ECBC 2017 in all new commercial buildings constructed 2018 onwards will result in 25% energy savings by 2030. Further, the adoption of ECBC plus and Super ECBC parameters is estimated to result in energy savings of 35% and 50% respectively.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.882  
ANSWERED ON 20.07.2017

POWER DEFICIT

882. SHRI BHARTRUHARI MAHTAB:  
SHRI C.S. PUTTA RAJU:

Will the Minister of POWER  
be pleased to state:

- (a) whether a number of States/UTs remained power deficit in the country due to inadequate supply of power from the Central Pool during each of the last three years and the current year, if so, the details thereof and the reasons therefor, State/UTwise;
- (b) the details of demand and supply of power from the Central Pool in the country during the said period, State/UTwise;
- (c) whether it is a fact that the State Governments/Union Territory Administrators were unable to provide power supply round the clock to all during the said period due to inadequate power supply from the Central Pool, if so, the details thereof along with the reaction of the Government thereto;
- (d) whether the Government has conducted any study/enquiry in this regard, if so, the details thereof and if not, the reasons therefor; and
- (e) the steps taken/being taken by the Government to ensure adequate power supply to the power deficit States/UTs and to ensure power supply to all in the country?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) to (c) : No, Madam. Electricity is a concurrent subject. Supply of power to various consumers in a State / UT, providing electricity connection in a State / UT are within the purview of the respective State Governments / state power utility. The Central Government, however, supplements the efforts of the State Governments by establishing power plants and transmission systems in the Central Sector through Central Power Sector Undertakings (CPSUs). Enough power is available in the country and, therefore, the States / UTs have been advised to purchase power through Competitive Bidding to meet the shortage, if any.

The details of Demand (Energy requirement), entitlement and supply of power from Central Generating stations (Schedule from central sector stations) during 2014-15, 2015-16, 2016-17 and during the current year (April-May,2017) are given at Annexure. States generally have not requisitioned power up to their entitlement in Central Generating Stations.

(d) : As per information given by the States / UTs to the Central Electricity Authority, a few States are facing energy shortages despite surplus power in the country due to the following reasons:

1. Sub-transmission and distribution constraints.
2. Poor performance of state's own generating stations.
3. Poor financial condition of many state power utilities.
4. High Aggregate Technical and Commercial (AT&C) losses.

(e) : The steps taken by the Government to ensure adequate power supply to the power deficit States/UTs and to ensure power supply to all in the country, inter-alia, are:

- (i) During the 12th Plan period (2012-17), a capacity addition of about 99,209 MW against the target of 88,537 MW from the conventional sources and about 29,462 MW as against the target of 30,000 MW from renewable sources have been achieved.
- (ii) Adequate supply of the domestic coal to power plants has been ensured.
- (iii) During the 12th Plan period (2012-17), 1,10,370 ckm as against the target of 1,07,440 ckm of transmission lines and 3,31,214 MVA as against the target of 2,82,750 MVA of transformation capacity have been completed.
- (iv) The Government of India has taken an initiative to prepare State specific Action Plans for providing 24X7 Power For All (PFA) in partnership with the States. The roadmap for all the States/UTs have been finalised and is under implementation.
- (v) Two schemes which were launched by the Government of India, namely, Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development Scheme (IPDS) for strengthening of sub-transmission and distribution networks and for segregation of agricultural feeders to give adequate and reliable supply and reduce line losses.
- (vi) The Government of India has taken several steps to promote energy conservation, energy efficiency and other demand side management measures.
- (vii) The Central Government notified Ujjwal Discom Assurance Yojana (UDAY) scheme for Operational & Financial Turnaround of DISCOMs.
- (viii) Government of India has taken steps for expeditious resolution of issues relating to Environmental and forest clearances for facilitating early completion of generation and transmission projects.

## ANNEXURE

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 882 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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Demand (Energy Requirement) Entitlement, Schedule from Central Generating Stations (CGSs)												
State /	2014-15			2015-16			2016-17			2017-18 (upto May)		
	Demand (Energy Requirement)	Entitlement from CGSs	Schedule from CGSs	Demand (Energy Requirement)	Entitlement from CGSs	Schedule from CGSs	Demand (Energy Requirement)	Entitlement from CGSs	Schedule from CGSs	Demand (Energy Requirement) upto May, 2017	Entitlement from CGSs (Upto May, 2017)	Schedule from CGSs (upto May, 2017)
	( MU )	( MU )	( MU )	( MU )	( MU )	( MU )	( MU )	(MU)	(MU)	(MU)	(MU)	(MU)
Chandigarh	1,616	960	844	1,607	1,108	992	1,645	1,235	1,036	308	251	208
Delhi	29,231	22,862	19,080	29,626	27,964	19,521	30,829	32,719	19,323	5,985	5,711	3,932
Haryana	46,615	17,125	12,094	47,506	19,905	13,225	48,895	19,455	14,471	8,301	3,486	2,919
Himachal Pradesh	8,807	6,230	5,771	8,821	7,149	6,800	8,831	7,162	6,880	1,572	1,532	1,415
Jammu & Kashmir	16,214	11,115	9,976	16,572	12,262	10,636	17,398	12,199	10,628	3,104	2,362	1,997
Punjab	48,629	20,312	17,675	49,687	23,104	18,790	53,098	22,393	18,972	8,541	3,864	3,376
Rajasthan	65,717	19,000	16,423	67,417	21,496	17,801	67,838	21,276	17,734	11,271	3,832	3,053
Uttar Pradesh	1,03,179	38,044	35,786	1,06,351	42,911	39,718	1,07,569	42,022	37,021	20,819	7,228	6,271
Uttarakhand	12,445	5,272	4,751	12,889	6,139	5,536	13,069	6,269	5,443	2,307	1,116	933
Chhattisgarh	21,499	8,726	7,777	25,649	8,889	7,474	23,750	8,876	7,491	4,782	1,527	1,180
Gujarat	96,235	38,048	31,956	1,03,544	39,270	32,371	1,03,706	30,321	26,134	19,793	4,677	4,001
Madhya Pradesh	53,374	32,030	28,809	62,374	41,064	35,879	65,759	33,401	26,933	10,876	4,517	3,664
Maharashtra	1,34,897	44,722	34,461	1,41,817	42,320	33,619	1,39,295	39,464	33,100	28,300	6,785	5,772
Daman & Diu	2,086	2,336	1,832	2,337	2,365	1,869	2,398	2,148	1,587	424	416	238
Dadra Nagar Haveli	5,307	5,299	4,101	5,925	5,499	3,812	6,021	5,275	3,413	1,024	976	597
Goa	3,969	3,689	3,403	5,120	3,762	3,423	4,319	3,477	3,292	724	636	571
Andhra Pradesh	59,198	16,602	16,115	50,436	13,491	12,477	54,300	12,872	11,599	10,026	2,373	2,165
Telangana	43,337	12,916	12,554	50,254	16,802	14,891	53,030	14,471	12,813	9,414	2,470	1,847
Karnataka	62,643	14,444	14,148	64,302	16,554	15,667	66,899	20,487	19,481	11,684	3,297	3,120
Kerala	22,459	13,556	11,540	23,318	14,422	11,595	24,296	13,551	10,575	4,505	2,280	1,747
Tamil Nadu	95,758	27,328	26,960	97,276	30,259	29,717	1,04,511	36,322	33,062	19,043	6,122	5,246
Puducherry	2,402	2,413	2,338	2,437	2,670	2,423	2,548	3,018	2,588	480	523	491
Bihar	19,294	12,905	12,735	23,961	16,330	15,950	25,711	19,003	18,252	4,443	3,263	3,217
DVC	18,222	1,286	1,229	18,437	1,163	1,107	18,929	1,341	1,168	3,519	183	163
Jharkhand	7,599	2,802	2,718	7,735	3,393	3,096	7,960	3,782	3,817	1,337	578	655
Odisha	26,482	8,244	7,784	26,762	8,936	7,448	26,758	9,676	8,281	5,056	1,323	1,230
West Bengal	47,086	7,298	6,822	47,359	8,031	6,810	47,948	8,653	7,109	9,533	1,191	1,014
Sikkim	399	839	780	399	974	773	475	1,053	818	74	175	162
Arunachal Pradesh	677	480	464	626	621	602	729	768	727	126	100	97
Assam	8,527	4,276	4,111	8,762	5,102	4,232	9,020	6,459	5,929	1,404	858	787
Manipur	705	537	518	840	778	748	764	1,102	968	123	163	152
Meghalaya	1,930	978	865	1,833	1,024	937	1,715	1,344	793	253	173	154
Mizoram	455	336	323	471	428	410	514	581	543	86	75	72
Nagaland	688	447	432	755	560	532	757	731	658	128	97	93
Tripura	1,242	1,034	987	1,202	1,416	1,361	1,644	1,781	1,624	490	273	258

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.888  
ANSWERED ON 20.07.2017

LEVY OF FEES FOR TESTING AND INSPECTION  
OF ELECTRICAL INSTALLATIONS

888. SHRIMATI DARSHANA VIKRAM JARDOSH:

Will the Minister of POWER  
be pleased to state:

(a) whether any action has been taken by the Central Government on the matter of levy of fees by State Electrical Inspectorate for testing & inspection of various electrical installations, as currently State Electrical Inspectorates are not able to levy testing & inspection charges which lead to financial burden on State Governments, if so, details thereof; and

(b) whether Union Government proposes to make necessary amendments urgently for restoration of earlier practice of levy of fees for testing & inspection of various electrical installations by State Electrical Inspectorate, 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 Electricity (Amendment) Bill, 2014 proposed that the appropriate Government could prescribe the fees and charges payable for undertaking the testing, inspection and services by the Chief Electrical Inspector and Electrical Inspectors.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.889  
ANSWERED ON 20.07.2017

WATER REQUIREMENT FOR THERMAL PLANTS

889. SHRI KANWAR SINGH TANWAR:

Will the Minister of POWER  
be pleased to state:

- (a) whether thermal power plants require large quantities of water during power generation;
- (b) if so, the details thereof;
- (c) whether thermal power plants have been set up in water scarce areas of Uttar Pradesh making those areas more water scarce;
- (d) if so, the details thereof; and
- (e) the remedial measures proposed to be taken by the Government in the matter?

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) : Water is one of the key input requirements for thermal power generation. Water is required for process cooling in the condenser, ash disposal, removal of heat generated in plant auxiliaries, boiler make up for steam generation and various other plant consumptive uses like service water, potable water etc. Typical consumptive water requirement for a coal based thermal power plant with wet cooling tower system is around 3.0 m<sup>3</sup>/MWh. For gas based combined cycle power plant, the typical consumptive water requirement with wet cooling tower system is around 1.4 m<sup>3</sup>/MWh. The major part of the consumptive water goes in meeting the cooling tower make-up requirement of the plant.

(c) to (e) : As reported by M/s Uttar Pradesh Rajya Vidyut Utpadan Nigam (UPRVUNL), M/s Neyveli Uttar Pradesh Power Ltd. (NUPPL) and M/s NTPC Ltd., no operational/under construction (Central Sector/State Sector) thermal power plants have been set up in water scarce areas of Uttar Pradesh.

The measures adopted to reduce consumption of water in Thermal Power Plants are as below:

- i) Ash water recirculation system- Water from ash pond is recovered and reused in the ash handling system.
- ii) Dry fly ash handling system & High concentration slurry disposal system (HCSD)- These ash handling techniques reduce the ash handling water requirement thereby reducing the water consumption.
- iii) Operating cooling towers at higher Cycle of Concentration (COC). This reduces the waste water generated by the plant.
- iv) Effluent Treatment Plants (ETP)- Treating the waste water produced in the plant and reuse it for low grade applications like ash handling, coal dust suppression and gardening etc.
- v) Zero water discharge system - Suitably treating the total waste water produced in the plant with no discharge of water from plant boundary so as to reduce the consumptive water requirement of the power plant.

Over the years, consumptive water requirement for thermal power plants for closed cycle CW system has been reduced from about 7 m<sup>3</sup>/MWh to about 3m<sup>3</sup>/MWh.

- vi) Provisions for use of treated sewage water by thermal power plants located within a distance of 50 km radius of municipality/ local bodies have been made in the Tariff Policy, 2016.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.892  
ANSWERED ON 20.07.2017

THERMAL POWER PLANTS IN CHHATTISGARH

†892. SHRIMATI KAMLA DEVI PAATLE:

Will the Minister of POWER  
be pleased to state the number of thermal power plants in various parts of the  
country including Chhattisgarh along with their annual requirement of coal?

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 the information available with CEA, the number of thermal  
power plants (TPPs) (Coal, Gas and Diesel) in the country, including  
Chhattisgarh, is about 276 having total installed capacity of 2,20,576 MW. In  
Chhattisgarh, there are about 27 thermal power plants having installed capacity  
of 20,908 MW.

Based on the generation target for the year 2017-18, the  
requirement of coal during 2017-18 by various thermal power plants in the  
country including those in Chhattisgarh, is about 630 MT, of which several  
plants are partially or largely based on imported coal.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.893  
ANSWERED ON 20.07.2017

REVIVAL OF STALLED POWER

893. SHRI DUSHYANT CHAUTALA:

Will the Minister of POWER  
be pleased to state:

- (a) whether the Government has prepared any plan of action for revival of stalled power projects across the country;
- (b) if so, the details of those projects identified by the Government for revival programme; and
- (c) the expected power generation and the estimated cost in case of those stalled power projects which were made functional?

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) : Government has reviewed the status of 34 stressed Thermal Power Projects, as per the list provided by Department of Financial Services. During the review meeting, Government has identified the major reasons for stress in the Power Sector, which are as follows:

- (i) Non-availability of regular fuel supply arrangements.
- (ii) Lack of Power Purchase Agreement (PPA) tie-ups.
- (iii) Inability of the Promoter to infuse the equity and service debt.
- (iv) Regulatory and Contractual issues.

The Government has also taken a number of steps to ease stress in the sector. These include:

1. For grant of regular coal linkages, Govt. of India has approved New Coal Allocation Policy, 2017, for Power sector, on 17.05.2017 viz. SHAKTI (Scheme for Harnessing and Allocating Koyala Transparently in India) under which coal is made available to Public Sector Undertakings of Central and State Government, and Independent Power Producers (IPPs) against already concluded long-term Power Purchase Agreements (PPAs) and long-term & medium-term PPAs, to be concluded in future.
2. To encourage increased purchase of Power, following measures have been taken:
  - a. Ujwal DISCOM Assurance Yojana (UDAY) scheme for Financial and Operational Turnaround of power distribution utilities (DISCOMs) of the country.
  - b. Power For All (PFA) initiative with States and UTs for bringing uninterrupted quality of power to each household, industry, commercial business, small & medium enterprise and establishment.
  - c. Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) for Rural Electrification; strengthening of sub-transmission and distribution networks in the rural areas; separation of agriculture and non-agriculture feeders and metering of distribution transformers/ feeders/consumers in the rural areas.
  - d. Integrated Power Development Scheme (IPDS) for strengthening of sub-transmission and distribution networks in the urban areas; Metering of distribution transformers / feeders / consumers in the urban areas and IT enablement of distribution sector.
  - e. Augmenting Transmission capacity to remove transmission constraints.
  - f. Flexibility in utilisation of domestic coal for reducing the cost of power generation.

(c) : A Hydro-electric project, namely, Teesta III HEP (6x200=1200 MW) in Sikkim by M/s. Teesta Urja Ltd. which was earlier held up due to funds constraints, was made functional. Works re-started in Oct, 2015 and the project was commissioned in Feb, 2017. The expected power generation from the project is 5296 MU. The estimated cost of the project is Rs.13965 Crore.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.899  
ANSWERED ON 20.07.2017

GAS FIRED GENERATION CAPACITY

899. DR. UDIT RAJ:

Will the Minister of POWER  
be pleased to state:

- (a) whether 16,000 Megawatt Gas fired generation capacity is lying idle for want of fuel;
- (b) the steps being taken by the Ministry to ensure that multi billion dollar investments in these plants by the Government and by private sector players are not wasted;
- (c) whether the Ministry has chalked out any strategy to use coal cess so far accumulated, if so, the details thereof; and
- (d) whether the Ministry has any proposal to ensure that current and future collections of coal cess be diverted to the National Clean Energy Fund, 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) : A total of 14305 MW gas based power generation capacity is stranded in the country due to non-availability of domestic gas. Ministry of Petroleum and 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 MoP&NG guidelines.

(c) & (d) : No, Madam. The Goods and Services Tax (Compensation to States) Act, 2017 which has been notified on 12.04.2017, provides that coal cess, along with some other cess on pan masala, tobacco, aerated water, etc. would constitute GST Compensation Fund and the same would be utilized to compensate the States for five years to compensate them for potential losses on account of GST implementation. After five years, any amount left would be shared on 50% basis between Centre and States.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.901  
ANSWERED ON 20.07.2017

TURNAROUND OF DISCOMS

901. SHRI RAJENDRA AGRAWAL:

Will the Minister of POWER  
be pleased to state:

- (a) the quantum of profit or loss of State electricity DISCOMS during the last five years, State-wise;
- (b) the reasons identified by the Government for stagnation/decline in the electricity generation capacity of State power utilities;
- (c) whether the Government is considering to recast the loans of State power DISCOMS; and
- (d) if so, the details thereof including the debt restructuring proposals being considered and if not, the reasons therefor, State/UT-wise?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) : Power Finance Corporation (PFC) Ltd. publishes the "Report on Performance of State Power Utilities". Based on the report published by PFC, the State-wise losses for utilities selling power directly to consumers for the years 2010-11 to 2014-15 are given in Annexure.

(b) : The electricity generation capability in State Sector Power Utilities has exceeded the target during the 12<sup>th</sup> Plan Period by 57%. The State Sector generation capacity addition target from conventional sources during the 12<sup>th</sup> Plan was 15,530 MW against which the total generation capacity addition achieved was 24,477 MW.

(c) & (d) : The Government of India had launched Ujwal DISCOM Assurance Yojana (UDAY) on 20.11.2015 which allows for considering debt recast of State Power Distribution Companies (DISCOMs) through issue of bonds / re-pricing of loans to enable their Operational Improvement and Financial Turnaround.

As of now, 26 States and 01 UT alongwith their DISCOMs have signed the Memorandum of Understanding (MoU) under UDAY with Ministry of Power. States and their Distribution Utilities have issued Bonds worth Rs.2.32 lakh crores.

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ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 901 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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## Profit/(Loss) for Utilities Selling Directly to Consumers

Rs. Crores

Region	State	Utility	2010-11		2011-12		2012-13		2013-14		2014-15	
			Profit/ (Loss) after tax on accrual basis	Profit/ (Loss) on subsidy received basis	Profit / (Loss) after tax on accrual basis	Profit/ (Loss) on subsidy received basis	Profit/ (Loss) after tax on accrual basis	Profit/ (Loss) on subsidy received basis	Profit/ (Loss) after tax on accrual basis	Profit/ (Loss) on subsidy received basis	Profit/ (Loss) after tax on accrual basis	Profit/ (Loss) on subsidy received basis
Eastern	Bihar	BSEB	(1,332)	(1,332)	(2,662)	(2,662)	(1,088)	(1,088)				
		NBPDCL					(56)	(56)	(74)	(74)	(297)	(491)
		SBPDCL					(84)	(84)	(269)	(269)	(748)	(748)
	Bihar Total		(1,332)	(1,332)	(2,662)	(2,662)	(1,227)	(1,227)	(343)	(343)	(1,044)	(1,239)
	Jharkhand	JSEB	(723)	(723)	(3,211)	(3,211)	(2,668)	(2,668)	(3,950)	(3,950)		
		JBVNL							(71)	(71)	(37)	(37)
	Jharkhand Total		(723)	(723)	(3,211)	(3,211)	(2,668)	(2,668)	(4,021)	(4,021)	(37)	(37)
	Odisha	CESU	(87)	(87)	(257)	(257)	(316)	(316)	(199)	(199)	(202)	(202)
		NESCO	(72)	(72)	(92)	(92)	(77)	(77)	(45)	(45)	(123)	(123)
		SESCO	(19)	(19)	(22)	(22)	(34)	(34)	(11)	(11)	(379)	(379)
		WESCO	(38)	(38)	(52)	(52)	(132)	(132)	(87)	(87)	(224)	(224)
	Odisha Total		(215)	(215)	(423)	(423)	(559)	(559)	(342)	(342)	(929)	(929)
	Sikkim	Sikkim PD	(23)	(23)	(17)	(17)	39	39	33	33	(126)	(126)
	Sikkim Total		(23)	(23)	(17)	(17)	39	39	33	33	(126)	(126)
	West Bengal	WBSEDCL	95	95	73	73	82	82	19	19	20	20
West Bengal Total		95	95	73	73	82	82	19	19	20	20	
Eastern Total			(2,198)	(2,198)	(6,240)	(6,240)	(4,332)	(4,332)	(4,654)	(4,654)	(2,116)	(2,310)
North Eastern	Arunachal Pradesh	Arunachal PD	(182)	(182)	(274)	(274)	(255)	(255)	(428)	(428)	(257)	(257)
	Arunachal Pradesh Total		(182)	(182)	(274)	(274)	(255)	(255)	(428)	(428)	(257)	(257)
	Assam	APDCL	(486)	(486)	(408)	(558)	(418)	(568)	(528)	(693)	(578)	(578)
	Assam Total		(486)	(486)	(408)	(558)	(418)	(568)	(528)	(693)	(578)	(578)
	Manipur	Manipur PD	(204)	(204)	(307)	(307)	(315)	(315)	(194)	(194)		
		MSPDCL										
	Manipur Total		(204)	(204)	(307)	(307)	(315)	(315)	(194)	(194)		
	Meghalaya	MeECL	(114)	(114)	(204)	(204)						
		MePDCL					(221)	(221)	(295)	(295)	(202)	(202)
	Meghalaya Total		(114)	(114)	(204)	(204)	(221)	(221)	(295)	(295)	(202)	(202)
	Mizoram	Mizoram PD	(158)	(158)	(127)	(127)	(200)	(200)	(192)	(192)	(192)	(192)
	Mizoram Total		(158)	(158)	(127)	(127)	(200)	(200)	(192)	(192)	(192)	(192)
	Nagaland	Nagaland PD	(179)	(179)	(214)	(214)	(212)	(212)	(191)	(191)	(315)	(315)
	Nagaland Total		(179)	(179)	(214)	(214)	(212)	(212)	(191)	(191)	(315)	(315)
	Tripura	Tripura PD	(126)	(130)	(157)	(157)						
TSECL						(107)	(107)	(62)	(62)	(60)	(82)	
Tripura Total		(126)	(130)	(157)	(157)	(107)	(107)	(62)	(62)	(60)	(82)	
North Eastern Total			(1,450)	(1,454)	(1,692)	(1,842)	(1,730)	(1,880)	(1,891)	(2,056)	(1,603)	(1,625)

Northern	Delhi	BSES Rajdhani	388	388	121	121	21	21	8	8	63	63
		BSES Yamuna	155	155	21	21	25	25	11	11	19	19
		TPDDL	258	258	339	339	310	310	334	334	336	336
	Delhi Total		801	801	481	481	356	356	353	353	418	418
	Haryana	DHBVNL	(792)	(955)	(4,599)	(4,599)	(1,352)	(1,352)	(2,089)	(2,089)	(636)	(636)
		UHBVNL	(129)	(129)	(8,604)	(8,604)	(2,297)	(2,297)	(1,465)	(1,465)	(1,481)	(1,481)
	Haryana Total		(921)	(1,084)	(13,203)	(13,203)	(3,649)	(3,649)	(3,554)	(3,554)	(2,117)	(2,117)
	Himachal Pradesh	HPSEB	(122)	(122)								
		HPSEB Ltd.	(380)	(380)	(513)	(513)	(340)	(340)	(137)	(137)	(125)	(125)
	Himachal Pradesh Total		(502)	(502)	(513)	(513)	(340)	(340)	(137)	(137)	(125)	(125)
	Jammu & Kashmir	J&K PDD	(2,167)	(2,167)	(3,037)	(3,037)	(3,129)	(3,129)	(2,387)	(2,387)	(3,913)	(3,913)
	Jammu & Kashmir Total		(2,167)	(2,167)	(3,037)	(3,037)	(3,129)	(3,129)	(2,387)	(2,387)	(3,913)	(3,913)
	Punjab	PSPCL	(1,640)	(1,640)	(537)	(459)	261	94	249	249	133	(1,100)
	Punjab Total		(1,640)	(1,640)	(537)	(459)	261	94	249	249	133	(1,100)
	Rajasthan	AVVNL	(6,907)	(6,907)	(7,596)	(7,596)	(3,905)	(3,905)	(4,843)	(4,843)	(3,593)	(3,593)
		JDVVNL	(6,827)	(6,827)	(6,179)	(6,179)	(4,285)	(4,285)	(5,299)	(5,299)	(4,146)	(4,146)
		JVVNL	(7,636)	(7,636)	(5,797)	(5,797)	(4,161)	(4,161)	(5,503)	(5,503)	(4,735)	(4,735)
	Rajasthan Total		(21,370)	(21,370)	(19,572)	(19,572)	(12,351)	(12,351)	(15,645)	(15,645)	(12,474)	(12,474)
	Uttar Pradesh	DVVN	(1,322)	(1,322)	(2,840)	(2,840)	(3,364)	(3,364)	(5,521)	(5,521)	(2,936)	(2,936)
		KESCO	(182)	(182)	(384)	(384)	(545)	(545)	(674)	(674)	(168)	(168)
MVVN		(742)	(742)	(1,765)	(1,765)	(2,033)	(2,033)	(3,263)	(3,263)	(1,994)	(1,994)	
Pash VVN		(453)	(453)	(1,992)	(1,992)	(1,303)	(1,303)	(3,172)	(3,172)	(1,577)	(1,577)	
Poorv VVN		(1,268)	(1,268)	(2,244)	(2,244)	(2,533)	(2,533)	(4,095)	(4,095)	(2,000)	(2,000)	
Uttar Pradesh Total		(3,966)	(3,966)	(9,224)	(9,224)	(9,778)	(9,778)	(16,724)	(16,724)	(8,675)	(8,675)	
Uttarakhand	Ut PCL	(204)	(204)	(55)	(55)	(16)	(16)	323	323	(260)	(260)	
Uttarakhand Total		(204)	(204)	(55)	(55)	(16)	(16)	323	323	(260)	(260)	
Northern Total		(29,969)	(30,132)	(45,660)	(45,582)	(28,647)	(28,814)	(37,521)	(37,521)	(27,012)	(28,245)	
Southern	Andhra Pradesh	APCPDCL	3	(778)	4	(1,476)	(7,718)	(7,718)	(811)	(811)		
		APEPDCL	13	(572)	25	(963)	(1,681)	(1,681)	(136)	(136)	(722)	(722)
		APNPDCL	7	(409)	3	(874)	(3,436)	(3,445)	(31)	(31)		
		APSPDCL	3	(418)	6	(710)	(4,673)	(4,678)	(401)	(401)	(1,675)	(1,827)
	Andhra Pradesh Total		26	(2,178)	38	(4,022)	(17,508)	(17,522)	(1,379)	(1,379)	(2,397)	(2,549)
	Karnataka	BESCOM			118	107	(433)	(433)	76	76	113	113
		CHESCOM	11	11	(123)	(269)	(270)	(337)	(16)	(72)	40	37
		GESCOM	61	61	(5)	34	(189)	(189)	38	38	(110)	(110)
		HESCOM	(65)	(65)	40	40	41	41	(576)	(576)	30	30
		MESCOM	2	2	6	6	13	13			14	14
	Karnataka Total		10	10	36	(82)	(838)	(905)	(478)	(534)	88	85
	Kerala	KSEB	241	241	241	241	241	241	140	140		
		KSEBL							(24)	(24)	(1,273)	(1,273)
	Kerala Total		241	241	241	241	241	241	116	116	(1,273)	(1,273)
	Puducherry	Puducherry PD	(134)	(134)	(164)	(164)	(308)	(308)	(60)	(60)	157	157
	Puducherry Total		(134)	(134)	(164)	(164)	(308)	(308)	(60)	(60)	157	157
	Tamil Nadu	TNEB	(6,273)	(6,273)								
TANGEDCO		(5,634)	(5,634)	(13,321)	(13,308)	(11,679)	(12,064)	(13,985)	(14,052)	(12,757)	(12,757)	
Tamil Nadu Total		(11,907)	(11,907)	(13,321)	(13,308)	(11,679)	(12,064)	(13,985)	(14,052)	(12,757)	(12,757)	
Telangana	TSNPDCL									(1,343)	(1,741)	
	TSSPDCL									(1,171)	(1,171)	
Telangana Total										(2,513)	(2,912)	
Southern Total		(11,764)	(13,967)	(13,171)	(17,337)	(30,092)	(30,559)	(15,786)	(15,909)	(18,695)	(19,249)	

Western	Chhattisgarh	CSPDCL	(581)	(581)	(2,012)	(2,012)	(498)	(498)	(630)	(630)	(1,554)	(1,569)
	Chhattisgarh Total		(581)	(581)	(2,012)	(2,012)	(498)	(498)	(630)	(630)	(1,554)	(1,569)
	Goa	Goa PD	(79)	(79)	(271)	(271)	(285)	(285)	(4)	(4)	(17)	(17)
	Goa Total		(79)	(79)	(271)	(271)	(285)	(285)	(4)	(4)	(17)	(17)
	Gujarat	DGVCL	63	63	76	76	25	25	52	52	51	51
		MGVCL	25	25	36	36	21	21	19	19	29	29
		PGVCL	3	3	9	9	11	11	10	10	11	11
		UGVCL	13	13	12	12	14	14	14	14	17	17
	Gujarat Total		103	103	134	134	71	71	95	95	108	108
	Madhya Pradesh	MP Madhya Kshetra VVCL	(605)	(605)	(1,129)	(1,129)	(1,593)	(1,595)	(2,672)	(2,672)	(2,728)	(2,765)
		MP Paschim Kshetra VVCL	(578)	(578)	(624)	(624)	(1,425)	(1,425)	(1,811)	(1,811)	(1,061)	(1,061)
		MP Purv Kshetra VVCL	(974)	(974)	(1,167)	(1,167)	(1,432)	(1,432)	(1,887)	(1,893)	(1,162)	(1,175)
	Madhya Pradesh Total		(2,157)	(2,157)	(2,920)	(2,920)	(4,450)	(4,452)	(6,370)	(6,376)	(4,950)	(5,001)
	Maharashtra	MSEDCL	(1,505)	(1,505)	(808)	(808)	(871)	(871)	(280)	(280)	(366)	(366)
	Maharashtra Total		(1,505)	(1,505)	(808)	(808)	(871)	(871)	(280)	(280)	(366)	(366)
	Western Total		(4,219)	(4,219)	(5,877)	(5,877)	(6,034)	(6,036)	(7,190)	(7,196)	(6,780)	(6,845)
	Grand Total		(49,600)	(51,971)	(72,639)	(76,877)	(70,835)	(71,621)	(67,041)	(67,336)	(56,206)	(58,275)

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

LOK SABHA  
UNSTARRED QUESTION NO.916  
ANSWERED ON 20.07.2017

OLD POWER PLANTS

916. SHRI R. DHRUVA NARAYANA:

Will the Minister of POWER  
be pleased to state:

- (a) whether Thermal Power Plants are more than 25 years old which are to be scrapped as they emit more gases which is dangerous to the environment as reported in the section of media;
- (b) if so, the details of the Thermal Plants to be scrapped, State-wise;
- (c) whether the Union Government has taken any effective steps to check the crises of power problem if these Thermal Plants are scrapped; and
- (d) if so, the details thereof?

A N S W E R

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

( SHRI PIYUSH GOYAL )

(a) to (d) : The emission of gases from Thermal Power Plants depend on its operation & maintenance, condition, technical parameters, quality of fuel etc. rather than the age of the plant. In order to conserve scarce natural resources like land, water and coal, Central Electricity Authority, in consultation with various Power Utilities, have identified coal based plants of 9456.5 MW in Govt. Sector which are more than 25 years old, for retirement in a phased manner on the basis of their inefficiency and un-economic operation. Out of above capacity, 3950 MW have been retired so far. The details of various units retired/ identified for retirement, state wise are annexed.

Decision to retire units are taken by respective power utility after due consultation with various stake holders such as DISCOMS, Transmission utilities etc. keeping in view grid stability, alternative source of power among other aspects. There is no shortage of generating capacity in the country.

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ANNEX REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO.916 ANSWERED IN THE LOK SABHA ON 20.07.2017.

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List of Thermal Power Units Retired / Identified to be retired

(A) Coal based Units Retired in Govt. Sector [Since Sept.'15 to June' 17]

Sl. No.	Name of the Utility	Name of the Station	Unit No.	Capacity (MW)	Date of deletion from National Installed Capacity by CEA
Madhya Pradesh					
1	MPPGCL	Amarkantak TPS (2x120 MW)	3 & 4	240	04.03.2016
Haryana					
2	HPGCL	Panipat TPS (4x110 MW)	1 to 4	440	12.04.2016
Maharashtra					
3	MAHAGENCO	Koradi TPS (4x105 MW)	1 to 4	420	02.08.2016
4	MAHAGENCO	Chandrapur TPS (2X210 MW)	1 & 2	420	21.10.2016
5	MAHAGENCO	Parli TPS	3	210	21.10.2016
6	MSPGCL	Koradi TPS	5	200	24.04.2017.
West Bengal					
7	DVC	Durgapur TPS	3	140	21.10.2016
8	WBPDC	Santalidih TPS (4x120 MW)	1 to 4	480	21.12.2016
9	DPL	DPL TPS	3	70	20.02.2017
10	DPL	DPL TPS	4	75	
11	DPL	DPL TPS	5	75	
Tamil Nadu					
12	TANGEDCO	Ennore TPS (2x60 + 3x110 MW)	1 to 5	450	12.01.2017
Gujarat					
13	GSECL	Gandhinagar TPS (2x120 MW)	1 & 2	240	12.01.2017
Jharkhand					
14	DVC	Chandrapur TPS	1	130	17.01.2017
15	PVUNL	Patratu TPS (3x50 +100+110 MW)	1, 2, 3, 5 & 8	360	21.12.2016
			Total:	3950	

(B) Coal based Units in Govt. Sector identified for retirement

Sl. No.	Name of the Utility	Name of the Station	Unit No.	Capacity (MW)
Assam				
1	APGCL	Chandrapur TPS (2x30 MW)	1 & 2	60
Gujarat				
2	GSECL	Sikka TPS	1	120
3	GSECL	Ukai TPS (2 x 120 MW)	1 & 2	240
Delhi				
4	IPGCL	Rajghat TPS (2 x 67.5 MW)	1 & 2	135
5	NTPC LTD.	Badarpur TPS (3 x 95 MW)	1, 2 & 3	285
Madhya Pradesh				
6	MPPGCL	Satpura TPS (200 + 210 MW)	6 & 7	410
7	MPPGCL	Satpura TPS (2 X 210 MW)	8 & 9	420
Punjab				
8	PSPCL	Ropar TPS (2 X 210 MW)	1 & 2	420
9	PSPCL	GND (Bathinda) TPS (2 X 110 MW)	1 & 2	220
10	PSPCL	Ropar TPS (2 x 210 MW)	3 & 4	420
Chhattisgarh				
11	CSPGCL	Korba East TPS (4 x 50 MW)	1,2,3 & 4	200
Uttar Pradesh				
12	UPRVUNL	Harduaganj	5	60
13	UPRVUNL	Obra TPS (40 + 50 MW)	1 & 2	90
14	UPRVUNL	Obra TPS	8	94
15	UPRVUNL	Panki TPS (2 x 105 MW)	3 & 4	210
Jharkhand				
16	PVUNL	Patratu TPS (50 + 100 + 3x110 MW)	4, 6, 7, 9 & 10	480
17	DVC	Chandrapur TPS (2 x 130 MW)	2 & 3	260
Tamil Nadu				
18	NLC	Nevyeli Lignite TPS-I (6 x 50 + 3 x 100 MW)	1 to 9	600
Telangana				
19	TSPGCL	Kothagudem TPS (4 x 60 MW)	1 to 4	240
20	TSPGCL	Kothagudem TPS (4 x 120 MW)	5 to 8	480
21	TSPGCL	Ramagundam-B TPS	1	62.5
			Total:	5506.5

Grand Total : 9456.5 MW

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