GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.164
ANSWERED ON 05.05.2016

SHORTAGE OF WATER IN THERMAL PLANTS

*164. SHRIMATI SUPRIYA SULE:
SHRI SATAV RAJEEV:

Will the Minister of POWER
be pleased to state:

(a) whether thermal power plants are facing difficulties due to non-availability of water particularly in coal bearing States, if so, the details thereof;

(b) the number of thermal power plants closed down due to non-availability of water during the last two years, State/UT-wise;

(c) whether the Government has asked all the existing power plants to reduce their water usage and also the proposed/future power plants to use less water as compared to the existing power plants, if so, the details thereof; and

(d) the other corrective measures being taken/proposed to be taken to overcome this situation?

A N S W E R

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

(SHRI PIYUSH GOYAL)

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

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STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF STARRED QUESTION NO. 164 ANSWERED IN THE LOK SABHA ON 05.05.2016 REGARDING SHORTAGE OF WATER IN THERMAL PLANTS.

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(a) & (b) : Maharashtra State Power Generation Co. Ltd. (MAHAGENCO) has informed that all units at Parli Thermal Power Station (1130 MW), in district Beed of Maharashtra, are under outage due to water shortage since June-July 2015. The details of units under outage are as under :

1. Unit No. 03 (210 MW) – 27.06.2015
2. Unit No. 04 (210 MW) – 05.07.2015
3. Unit No. 05 (210 MW) – 06.07.2015
4. Unit No. 06 (250 MW) – 25.06.2015
5. Unit No. 07 (250 MW) – 08.07.2015

Details of other thermal power generating units which were temporarily under shut down due to non availability of water are given in the Annexure.

(c) : Yes, Madam. Limits for water consumption for coal based plants have been notified on 07.12.2015, vide S O 3305 (E) as detailed below:

i. All plants with Once Through Cooling (OTC) shall install Cooling Tower (CT) and achieve specific water consumption max. 4m^3/MWh within 2 years period from the date of notification.

ii. All existing CT-based plants shall reduce specific water consumption upto maximum of 3.5m^3/MWh within 2 years period from the date of notification.

iii. New plants to be installed after January 01, 2017 shall meet specific water consumption maximum of 2.5m^3/MWh and achieve zero liquid discharge.

(d) : Following measures have also been adopted to overcome shortage of water in Thermal Power Plants:

i. Installation of Dry ash handling system.

ii. Installation of Ash water recirculation system (AWRS).

iii. Installation of Zero water discharge system.

iv. Installation of High concentration slurry system (HCSS)

v. Use of closed cycle cooling water system and high level of cycle of concentration (COC) to recirculate the water in operation for reducing the water requirement.

vi. Govt. Of India has notified new Tariff policy on 28.01.2016 wherein it is mandated that the thermal power plant(s) including the existing plants located within 50 km radius of sewage treatment plant of Municipality/ local bodies/ similar organisation shall, in the order of their closeness to sewage treatment plant, mandatorily use treated sewage water produced by these bodies and the associated cost on this account be allowed as pass through in the tariff.

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ANNEXURE

ANNEXURE REFERRED TO IN PARTS (a) & (b) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 164 ANSWERED IN THE LOK SABHA ON 05.05.2016 REGARDING SHORTAGE OF WATER IN THERMAL PLANTS.

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Outage details of Thermal Generating units which were temporarily under shut down due to Raw water problem

REGION	STATE	SECTOR TYPE	ORGANIZATION	STATION	UNIT NO	CAPACITY (MW)	TRIP DATE	SYNC DATE	OUTAGE REASON
ER	BIHAR	CENTRAL	NTPC Ltd.	BARH II	4	660	11-Jul-15	11-Jul-15	RAW WATER NOT AVAILABLE/ LOW INTAKE CANAL LEVEL
ER	BIHAR	CENTRAL	NTPC Ltd.	BARH II	5	660	4-Oct-15	5-Oct-15	RAW WATER PROBLEM
ER	WEST BENGAL	CENTRAL	NTPC Ltd.	FARAKKA STPS	1	200	1-Apr-16	6-Apr-16	RAW WATER PROBLEM
ER	WEST BENGAL	CENTRAL	NTPC Ltd.	FARAKKA STPS	2	200	1-Apr-16	4-Apr-16	RAW WATER PROBLEM
ER	WEST BENGAL	CENTRAL	NTPC Ltd.	FARAKKA STPS	3	200	1-Apr-16	11-Apr-16	RAW WATER PROBLEM
ER	WEST BENGAL	CENTRAL	NTPC Ltd.	FARAKKA STPS	4	500	15-Feb-16	18-Feb-16	RAW WATER PROBLEM
ER	WEST BENGAL	CENTRAL	NTPC Ltd.	FARAKKA STPS	4	500	1-Apr-16	11-Apr-16	RAW WATER PROBLEM
ER	WEST BENGAL	CENTRAL	NTPC Ltd.	FARAKKA STPS	5	500	1-Apr-16		RAW WATER PROBLEM
SR	KARNATAKA	STATE	KPCL	RAICHUR TPS	1	210	1-Sep-15	2-Sep-15	RAW WATER PROBLEM
SR	KARNATAKA	STATE	KPCL	RAICHUR TPS	1	210	17-Mar-16	21-Mar-16	RAW WATER NOT AVAILABLE/ LOW INTAKE CANAL LEVEL
SR	KARNATAKA	STATE	KPCL	RAICHUR TPS	2	210	15-Mar-16	21-Mar-16	RAW WATER NOT AVAILABLE/ LOW INTAKE CANAL LEVEL
SR	KARNATAKA	STATE	KPCL	RAICHUR TPS	5	210	11-Feb-16	13-Feb-16	RAW WATER PROBLEM
SR	KARNATAKA	STATE	KPCL	RAICHUR TPS	6	210	14-Mar-16	20-Mar-16	RAW WATER NOT AVAILABLE/ LOW INTAKE CANAL LEVEL
SR	KARNATAKA	STATE	KPCL	RAICHUR TPS	7	210	17-Feb-16	19-Feb-16	RAW WATER PROBLEM
SR	KARNATAKA	STATE	KPCL	RAICHUR TPS	7	210	15-Mar-16	21-Mar-16	RAW WATER NOT AVAILABLE/ LOW INTAKE CANAL LEVEL
SR	TAMIL NADU	CENTRAL	NTPL	TUTICORIN (JV) TPP	2	500	5-Oct-15	5-Oct-15	RAW WATER PROBLEM
SR	KARNATAKA	PVT	UPCL	UDUPI TPP	1	600	10-Aug-15	10-Sep-15	RAW WATER PROBLEM
SR	KARNATAKA	PVT	UPCL	UDUPI TPP	2	600	11-Aug-15	27-Aug-15	RAW WATER PROBLEM
SR	KARNATAKA	PVT	UPCL	UDUPI TPP	2	600	19-Apr-16		RAW WATER PROBLEM
SR	ANDHRA PRADESH	PVT	HNPC	VIZAG TPP	1	520	2-Feb-16	2-Feb-16	RAW WATER PROBLEM
WR	MAHARASHTRA	PVT	EEL	EMCO WARORA TPS	1	300	20-May-15	26-May-15	RAW WATER PROBLEM

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WR	MAHARASHTRA	PVT	EEL	EMCO WARORA TPS	1	300	15-Apr-16		RAW WATER NOT AVAILABLE/ LOW INTAKE CANAL LEVEL
WR	MAHARASHTRA	PVT	EEL	EMCO WARORA TPS	2	300	19-Apr-16		RAW WATER NOT AVAILABLE/ LOW INTAKE CANAL LEVEL
WR	CHHATTISGARH	PVT	ACB	KASAIPALLI TPP	2	135	21-Aug-15	23-Aug-15	RAW WATER PROBLEM
WR	GUJARAT	PVT	EPGL	SALAYA TPP	2	600	30-Mar-15	7-Apr-15	RAW WATER PROBLEM
WR	GUJARAT	PVT	EPGL	SALAYA TPP	2	600	9-Apr-15	9-May-15	RAW WATER PROBLEM
WR	GUJARAT	PVT	EPGL	SALAYA TPP	2	600	12-Jul-15	24-Jul-15	RAW WATER PROBLEM
WR	GUJARAT	PVT	EPGL	SALAYA TPP	2	600	1-Sep-15	14-Sep-15	RAW WATER PROBLEM
WR	MADHYA PRADESH	PVT	SPL	SASAN UMTPP	3	660	26-Jul-15	27-Jul-15	RAW WATER PROBLEM
WR	GUJARAT	STATE	GSECL	SIKKA REP. TPS	3	250	27-Oct-15	31-Oct-15	RAW WATER NOT AVAILABLE/ LOW INTAKE CANAL LEVEL

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.179
ANSWERED ON 05.05.2016

HYDRO POWER GENERATION

*179. DR. RAMESH POKHRIYAL "NISHANK":
SHRI DHANANJAY MAHADIK:

Will the Minister of POWER
be pleased to state:

(a) whether any survey has been conducted by the Union Government to assess the hydro-electric potential in the country and if so, the details thereof and the current hydro-electric generation capacity realised against the potential in the country;

(b) the quantum of hydro electricity produced in the country during the last three years and the current year; and

(c) whether a number of hydro-electric projects remain incomplete due to various reasons, if so, the details of the expenditure incurred and the loss occurred due to delay in completion of the projects, State-wise and project-wise?

A N S W E R

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

(SHRI PIYUSH GOYAL)

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

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STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (c) OF STARRED QUESTION NO.179 ANSWERED IN THE LOK SABHA ON 05.05.2016 REGARDING HYDRO POWER GENERATION.

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(a) : Central Electricity Authority has conducted studies from 1978 to 1987 for re-assessment of hydro-electric projects in the country. Based on the above studies, the total identified hydropower potential in the country has been assessed as 1,48,701 MW comprising a capacity of 1,45,320 MW from Hydro Electric (HE) schemes above 25 MW capacity against which about 37,998 MW (26.15%) has been exploited so far. In addition, 9 Pumped Storage Schemes of 4785 MW have also been developed.

(b) : The quantum of hydro electricity produced in the country during the last three years and the current year is as under:

Year	Annual Energy (BU)
2013-14	134.85
2014-15	129.24
2015-16	121.34
2016-17 (Upto 24.04.2016)	6.11

(c) : Presently, 45 HE schemes with an aggregate capacity of 13,502 MW including 2 Pumped Storage Schemes with an aggregate capacity of 1080 MW are under construction in the country. Out of the above, works on 15 Hydro Electric Projects (HEPs) totaling 5992 MW is affected due to various reasons like financial constraints, inter-State disputes, Court Case, Environmental issues, Commercial issues etc., as a result of which there has been a potential loss of generation of power to the extent of 19217.4 MUs, general price escalation and interest during construction. A statement indicating State-wise/Project-wise loss of generation of power is given in Annex.

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ANNEX REFERRED TO IN PART (c) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 179 ANSWERED IN THE LOK SABHA ON 05.05.2016 REGARDING HYDRO POWER GENERATION.

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INCOMPLETE HYDRO-ELECTRIC PROJECTS (STATE WISE)- HAVING MAJOR CONSTRAINTS

Sl. No.	Name of Project/ Executing Agency / Capacity (MW)	Reasons for Stuck up	Design Energy (MU)
	Andhra Pradesh		
1.	Polavaram Polavaram Project Authority (12x80 = 960 MW)	• Slow progress of works due to funds constraints	431.27 (35th Yr.)
	Arunachal Pradesh / Assam		
2.	*Subansiri Lower* *NHPC* *(8x250=2000 MW)*	• Since 16.12.2011 works stopped due to agitation by various activists, fearing dam safety and downstream impacts of dam.	7421.59
	Himachal Pradesh		
3.	Kashang – II & III HPPCL (2x65 = 130 MW)	• Works on KK Link tunnel could not start due to agitation by Lippa villagers.	386
	Jammu & Kashmir		
4.	Ratle GVK Ratle Hydro Electric Project Pvt. Ltd. (4x205+1x30=850 MW)	• No progress since July, 2014. (Local issues/ Indus Water Treaty Issues/ Issues with State Govt.)	3136.76
	Kerala		
5.	Pallivasal KSEB (2x30=60 MW)	• Works are almost standstill. • Hon'ble Minister of Power, Kerala in a meeting conducted on 22/07/2015 stated that existing contract is liable to be terminated	153.9 (as available at websites)
6.	Thottiyar KSEB (1x30+1x10=40 MW)	• Works are almost standstill. • The contractor has put forward a proposal for foreclosure of the Project due to their financial stringency.	99 (as available at websites)
	Madhya Pradesh		
7.	Maheshwar SMHPCL (10x40= 400 MW)	• Works suspended since Nov-11 due to cash flow problem with developer.	823
	Maharashtra		
8.	Koyna Left Bank PSS WRD, Govt. of Maharashtra (2x40=80 MW)	• Current expenditure on project has reached to almost original administrative approved cost level hence expenditure on the project is stopped	167.55
	Punjab		
9.	Shahpurkandi Irr. Deptt., Punjab. & PSPCL (3x33+3x33+1x8 =206 MW)	• Works of Dam (J&K side) stopped since 30.08.2014 due to inter-state disputes between Punjab and J&K Government.	815.12

.....2.

	Sikkim		
10.	Teesta VI LancoTeesta Hydro Power Ltd. (4x125=500 MW)	• Almost no progress since April, 2014. (Funds Constraints)	2440
11.	Rangit-IV Jal Power Corp. Ltd. (JPCL) (3x40= 120 MW)	• Works stopped since Oct-13 due to cash flow problem with developer.	513
12.	Panan Himagiri Hydro Energy Pvt. Ltd. (4x75 = 300 MW)	• Major Civil Works held up for want of NGT Clearance. However, since there is no stay, developers informed that work to start shortly.	1147.82
	Uttarakhand		
13.	Lata Tapovan, NTPC (3x57=171 MW)	• Construction work stopped vide Hon'ble Supreme Court order dated 7.5.2014.	868.89
14.	Phata Byung M/s. Lanco (2x38=76 MW)	• Works affected due to flash flood in June, 2013. • Slow pace of works & financial constraints.	340.5
15.	Singoli Bhatwari M/s. L&T (3x33=99 MW)	• Works affected due to flash flood in June, 2013. • Slow pace of works	473
		Total =	19217.4

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1844
ANSWERED ON 05.05.2016

ENERGY CONSUMPTION BY MSMES

1844. SHRI PRALHAD JOSHI:

Will the Minister of POWER
be pleased to state:

(a) whether the Ministry is aware that seventy per cent of the total industrial Power load of the country is attributed to MSMEs, if so, the details thereof;

(b) whether the Ministry has taken steps to ensure efficient energy consumption by MSMEs and if so, the details thereof;

(c) whether any steps have been taken to encourage use of alternate or energy efficient technology by MSMEs and if so, the details thereof; and

(d) whether MSMEs fall under the ambit of Energy Conservation Act, 2001 and if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : The Ministry of Power does not maintain data related to Industrial power load of the country attributed to Micro Small and Medium Enterprises (MSMEs) separately since the States do not provide any such data.

(b) & (c): Ministry of Power through Bureau of Energy Efficiency (BEE) and Energy Efficiency Services Limited (EESL), a joint venture company under Ministry of Power has undertaken following steps to ensure efficient energy consumption by MSMEs:

(i) Since XI Plan period, BEE is implementing BEE-SME energy efficiency programme in various energy intensive clusters. During the XI Plan, BEE has prepared 375 Technology specific bankable DPRs enlisting energy efficiency technologies identifies through a technology gap assessment study conducted in 25 high energy intensive clusters belonging to 12 SME sectors followed by energy audits in 1250 units.

(ii) During the XII Plan, BEE is implementing 100 demonstration projects on Best Available Energy Efficiency Technologies in 5 clusters. Apart from this, BEE is also implementing energy efficiency activities into 15 different energy intensive cluster under the Global Environment Fund (GEF) funded multilateral projects.

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(iii) EESL is implementing a project funded under GEF through United Nations Industrial Development Organization for energy efficiency in MSMEs, to enable adoption of energy efficient technologies in 10 clusters in the country.

Further, Ministry of Micro, Small and Medium Enterprises (MSMEs), Government of India is also implementing a Scheme under National Manufacturing Competiveness Programme (NMCP), namely, “Technology and Quality Upgradation Support (TEQUP) to MSMEs”, to support units which intend to implement energy efficient and eco-friendly technology. Under this scheme, the Government provides financial support to the extent of 25% of the project cost towards implementation of Energy Efficient Technology (EET), subject to maximum of Rs.10.00 lakhs.

(d) : MSMEs do not falls under the ambit of Energy Conservation Act, 2001.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1846
ANSWERED ON 05.05.2016

POWER SUPPLY TO BANGLADESH

1846. SHRI C. MAHENDRAN:

Will the Minister of POWER
be pleased to state:

(a) whether the Union Government has inaugurated a 100 MW power supply from Tripura to Bangladesh while Bangladesh has provided 10 GB of internet bandwidth from Cox's Bazar to Agartala;

(b) if so, the details thereof; and

(c) the details of terms and conditions for implementation of the above projects?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : The Hon'ble Prime Minister of Government of India and the Hon'ble Prime Minister of Bangladesh have jointly dedicated the two projects, namely, (i) Second Cross Border Transmission Interconnection system between Surjyamaninagar (India) and South Comilla (Bangladesh) which would transfer 100 MW power from Tripura to Bangladesh; and (ii) International Bandwidth of 10 GBPS for Broadband Internet from Bangladesh (Cox's Bazar) to India (Agartala).

(c) : The Indian portion of the transmission lines was constructed by Power Grid Corporation of India Limited (PGCIL) and the transmission tariff and other charges are being paid by Bangladesh Power Development Board (BPDB), Bangladesh in accordance with the norms issued by the Central Electricity Regulatory Commission (CERC) from time to time. Power Purchase Agreement (PPA) has also been signed between BPDB and NTPC Vidyut Vyapar Nigam Limited (NVVN) on 15th March 2016 and back to back Power Supply Agreement (PSA) was also signed by NVVN with Tripura State Electricity Corporation Ltd (TSECL) to enable commencement of power supply to Bangladesh.

As regards 10 GB broadband internet line from Cox's Bazaar (Bangladesh) to Agartala, an agreement between Bharat Sanchar Nigam Limited (BSNL) and Bangladesh Submarine Cable Company Limited (BSCCL) was signed on 6th June, 2015. As per the Agreement, BSCCL is leasing 10 GBPS International bandwidth to BSNL for a period of 3 years. The Terrestrial Optical Fibre has connected Cox's Baazar-Akhaura-Agartala through Internet Protocol (IP) Transit Port from Bangladesh. This serves as an alternate route for telecom and internet traffic for North-Eastern States of India.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1865
ANSWERED ON 05.05.2016

POWER TARIFF COSTS

1865. SHRI M.K. RAGHAVAN:

Will the Minister of POWER
be pleased to state:

(a) whether the power generation projects are facing prohibitive tariff costs as well as lack of assured fuel supplies and if so, the details thereof;

(b) the factors leading to such a scenario and the remedial measures being taken by the Union Government to make the power sector more viable and production oriented; and

(c) the steps being taken by the Union Government to re-generate the stalled projects in the power sector indicating the time frame and the output expected from these projects, State/UT-wise?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : Coal based thermal power stations with Fuel Supply Agreements (FSAs) are having assured coal supply. However, as on 31.03.2016, coal based Thermal Units of about 13000 MW out of the total installed capacity of about 1,85,000 MW do not have coal linkages.

Gas based generating projects in the country are facing deficit in availability of domestic gas for gas-based power projects and most of the gas-based power plants are operating at a very low Plant Load Factor (PLF).

Government has notified a Scheme on 27.03.2015 for utilization of gas based power generation capacity in the country by supply of Spot RLNG (e-bid RLNG) to both stranded power plants and plants receiving domestic gas, for generation upto target PLF, selected through a reverse e-bidding process. Three rounds of auction have been completed under this Scheme.

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(c) : Following measures have been taken by the Government to ensure availability of coal to power plants:

(i) Multi-dimensional efforts are underway by Coal India Ltd. (CIL) to enhance production of domestic coal.

(ii) After the cancellation of 204 coal blocks by Hon'ble Supreme Court, Government has ensured re-allocation of 47 blocks to power sector through auction/allotment till date.

(iii) Separate e-auction window for power sector has been started by Coal India Ltd. (CIL) for providing coal to thermal power projects including stressed projects having no linkages or Power Purchase Agreements (PPAs).

(iv) Coal supply to Projects getting coal on Memorandum of Understanding (MoU) basis, has been extended upto June 2016.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1873
ANSWERED ON 05.05.2016

NUMBER OF UN-ELECTRIFIED VILLAGES

†1873. SHRI GOPAL SHETTY:
DR. KIRIT P. SOLANKI:

Will the Minister of POWER
be pleased to state:

(a) the number of un-electrified villages in the country especially in Uttar Pradesh and Madhya Pradesh;

(b) the time-frame fixed for electrification of all these villages, State/ UT-wise; and

(c) whether there is any specific selection process to get benefit of electrification under the Deen Dayal Gram Jyoti Yojana, if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a)& (b) : There were 18,452 un-electrified villages in the country including 1529 un-electrified villages in Uttar Pradesh and 472 un-electrified villages in Madhya Pradesh as on 01.04.2015. Out of these 18,452 un-electrified villages, the electrification works in 7,108 villages have been completed including 1305 villages in Uttar Pradesh and 214 villages in Madhya Pradesh during the year 2015-16, as reported by the States.

Electrification of all the remaining un-electrified villages is targeted for completion by 1st May, 2018.

(c) : State Governments/DISCOMs submit online district-wise Detailed Project Reports (DPRs) on the basis of field survey duly recommended by the District Electricity Committee (DEC) and approved by State Level Standing Committee (SLSC). After online submission, DPRs are techno-economically apprised by the nodal agency Rural Electrification Corporation (REC), and submitted to the Monitoring Committee of DDUGJY for consideration.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1877
ANSWERED ON 05.05.2016

TRANSMISSION LINE FROM WARORA TO HYDERABAD

1877. DR. BOORA NARSAIAH GOUD:

Will the Minister of POWER
be pleased to state:

(a) whether a new transmission line from Warora to Hyderabad and strengthening of existing transmission system beyond Vemagiri to Hindupur and from Srikakulam to Garividi in Telangana were approved by the Union Government;

(b) if so, the details thereof and the present status of these projects; and

(c) whether there is any delay in completion of these projects and if so, the details thereof and the steps being taken by the Union Government thereon?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : Yes, Madam. The transmission lines from Warora to Hyderabad and strengthening of existing transmission system beyond Vemagiri to Hindupur and from Srikakulam to Garividi in Telangana are covered under following transmission schemes approved by the Government :

(i) Strengthening of Transmission System beyond Vemagiri.

(ii) Additional inter-Regional AC (Alternating Current) link for import into Southern Region i.e. Warora –Warangal and Chilakaluripeta - Hyderabad - Kurnool 765 kV link.

(iii) 400 kV Double Circuit (D/C) (Quad) transmission line from YSR Kadapa district (Cuddapah) to Hindupur.

The present status of these schemes is given at *Annex*.

(c) : No, Madam. The schemes would be completed by scheduled dates.

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ANNEX

ANNEX REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 1877 ANSWERED IN THE LOK SABHA ON 05.05.2016.

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The details and the present status of transmission schemes

Sl. No.	Scheme	Status
(i)	Strengthening of Transmission System beyond Vemagiri.	Bidding process has been completed and SPV is expected to be transferred to the successful bidder by May, 2016. The project is scheduled to be completed by September, 2019.
(ii)	Additional inter-Regional AC (Alternating Current) link for import into Southern Region i.e. Warora –Warangal and Chilakaluripeta - Hyderabad - Kurnool 765 kV link.	Bidding process has been completed. SPV has been transferred to Power Grid on 4th December, 2015. The project is scheduled to be completed by April, 2019.
(iii)	400 kV Double Circuit (D/C) (Quad) transmission line from YSR Kadapa district (Cuddapah) to Hindupur.	The line is presently under implementation by Power Grid and is scheduled for completion in July, 2018. LILO of the line at NP Kunta for evacuation of power from the NP kunta Solar Park in Andhra Pradesh would be completed by April, 2017.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1890
ANSWERED ON 05.05.2016

MoU WITH IRAN

1890. SHRI ANTO ANTONY:

Will the Minister of POWER
be pleased to state:

(a) whether the Government has recently signed a memorandum of Understanding (MoU) with Iran regarding enhancement of bilateral cooperation in the power sector; and

(b) if so, the details thereof including the salient features of the MoU?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : No, Madam.

(b) : Does not arise.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1908
ANSWERED ON 05.05.2016

WATER CONSUMPTION BY COAL BASED POWER PLANTS

1908. SHRI ASADUDDIN OWAISI:

Will the Minister of POWER
be pleased to state:

(a) whether the Government has assessed the impact of setting up of the coal based power plants in areas which face severe water scarcity into the country;

(b) if so, the details thereof;

(c) whether it is a fact that more than 40 per cent of India's proposed coal based power plants are likely to double the country's water consumption;

(d) if so, the details thereof;

(e) whether the Greenpeace International has observed that most of the States in the country are likely to bear the brunt of water shortage due to construction of the proposed coal based power plants; and

(f) if so, the remedial steps being taken by the Government in this regard?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) to (e) : Government has not separately assessed the impact of setting up of the coal based power plants in areas which face severe water scarcity into the country. Allocation of water for Thermal Power Projects is done by Water Resources Deptt. of the concerned State Government Department where the project is located and they assess all factors before allocation of water.

Report of Greenpeace International has not been examined in this Ministry.

(f) : Consumptive water requirement for thermal power plants with closed cycle system used to be about 7 m^3/MWh input, which has been optimized by various technological interventions and water conservation practices. At present, the typical total consumptive water requirement in a closed cycle system for a thermal power plant has been brought down to 3m^3/MWh.

.....2.

The water conservation measures and technology interventions adopted by Thermal Power Plants are as follows :

- Dry Ash Handling System.
- Ash Water Recirculation System. (AWRS)
- Zero water discharge system.
- High Concentration Slurry System. (HCSS)
- Most of inland thermal power plants use closed cycle cooling water system with Cooling Tower and high level of Cycle of Concentration (COC) to recirculate the water in operation for reducing the water requirement.

With a view to further reduce water consumption in Thermal Power Plants, Ministry of Environment, Forest & Climate Change (MOEF&CC), vide notification dated 07.12.2015, has issued Environment (Protection) Amendment Rules 2015 where in the standards for water consumption for thermal power plants have been stipulated. As per the notification, the total consumptive water requirement in a closed cycle system for a thermal power plant has been brought down to 2.5m^3 /MWh for new plants, to be installed after 1st January 2017.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1911
ANSWERED ON 05.05.2016

TECHNOLOGY SUPPORT TO POWER STATION TAMIL NADU

1911. SHRI PR. SENTHIL NATHAN:

Will the Minister of POWER
be pleased to state:

(a) whether the Union Government is providing any technological and financial support to the Thermal Power stations in Tamil Nadu; and

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

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : As per Electricity Act 2003, 'Any generating company may establish, operate and maintain a generating station without obtaining a licence under this Act if it complies with the technical standards relating to connectivity with the gird'.

Central Electricity Authority (CEA) brings out regulations and technical standards in the field of power generation, transmission, distribution and safety. These are being used by various stakeholders (central, state and private) such as generating companies, transmission companies, manufacturing companies and distribution companies etc., involved in the power sector. CEA also brings out specialized technical reports & standards on technical matters for the benefit of power sector, and the reports are widely used by all the stakeholders.

Finances for Thermal Power Stations are arranged by the respective utilities.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1920
ANSWERED ON 05.05.2016

TECHNOLOGY UPGRADATION FOR POWER GENERATION

1920. KUMARI SHOBHA KARANDLAJE:

Will the Minister of POWER
be pleased to state:

(a) whether the country's power generation over the next few decades will continue to depend heavily on coal and if so, the details thereof;

(b) whether an advanced ultra super critical technology R & D project has been approved by the Government at a cost of Rs. 1500 crore for coal based power plants; and

(c) if so, the objectives thereof and progress made in implementation of the projects?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : As on 31.03.2016, the total installed generation capacity in the country was 2,98,059.97 MW with the fuel wise break-up as under:-

INSTALLED CAPACITY AS ON 31.03.2016

(FIGURES IN MW)

	Hydro	Thermal				Nuclear	Renewable Energy Sources (RES) @	Total
		Coal	Gas	Diesel	Total			
Installed Capacity (MW)	42783.42	185172.88	24508.63	993.53	210675.04	5780.00	38821.51	298059.97
% share	14.35	62.13	8.22	0.33	70.68	1.94	13.02	100.00

@ : Renewable Energy Sources capacity is as on 31.12.2015

The Coal Based Generation Capacity is 62.13% of the total installed capacity of 2,98,059.97 MW as on 31.03.2016. Under Intended Nationally Determined Contributions (INDC), the Government of India has committed to achieve renewable generation capacity of 1,75,000 MW in the next few years. After achieving the renewable generation capacity of 1,75,000 MW, the share of coal based energy in the energy mix of the country is expected to reduce.

(b) : No, Madam.

(c) : Does not arise.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1922
ANSWERED ON 05.05.2016

REVENUE LOSSES IN DISTRIBUTION

1922. SHRI ABHISHEK SINGH:

Will the Minister of POWER
be pleased to state:

(a) whether Government has chalked any plan to reduce revenue loss through the better power distribution and checking the faults in transmission of electricity and if so, the details thereof;

(b) whether Government is considering to upgrade its electricity network into a smart grid system which will facilitate two-way communication between consumers and the power utilities; and

(c) if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : Yes, Madam. The Government of India has launched Ujjwal Discom Assurance Yojana (UDAY) for the financial and operational turnaround of state-owned Power Distribution Companies (DISCOMS).The scheme aims to reduce interest burden, reduce the cost of power, reduce power losses in Distribution sector, and improve operational efficiency of DISCOMS. 18 States and one Union Territory have given their 'in-principle' approval to participate under UDAY. So far, 10 States have already signed the Memorandum of Understanding (MoUs) with Ministry of Power under UDAY. In addition, under Integrated Power Development Scheme (IPDS) and Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) launched by Government of India for upgrading distribution networks in Urban & Rural areas, there is a provision of financial incentives for reduction in AT&C losses in addition to grants for taking up strengthening projects.

(b) & (c) : Yes, Madam. Government of India (GoI) has launched National Smart Grid Mission (NSGM) to plan and monitor implementation of policies and programmes related to Smart Grid activities in India. NSGM envisages implementation of Smart Grid projects in the country to make Indian Power infrastructure cost effective, responsive, reliable and self-healing. Smart Meters, which enable two way communication between consumers and the power utilities, is one of the major components of a Smart Grid system. Two Smart Grid projects for Amravati and Chandigarh have been approved under NSGM at a cost of Rs. 118.63 crore with 30% funding from Government of India (GoI) under NSGM. The Budgetary support for NSGM activities for the Financial Year 2016-17 is Rs. 30 Crore.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1928
ANSWERED ON 05.05.2016

PROJECTS BY PGCIL

†1928. SHRI LAXMI NARAYAN YADAV:

Will the Minister of POWER
be pleased to state:

(a) the details of the work undertaken by the Power Grid Corporation of India Ltd. located in Bina under CSR during the last three years;

(b) the total amount of funds spent on the CSR work there during the said period;

(c) whether the Government proposes to involve the local MP for reviewing the CSR work; 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 AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) : The details of works undertaken by Power Grid Corporation of India Ltd. (PGCIL) in Bina under CSR during the last three years is given at Annex.

(b): The amount spent during last three years in Bina under CSR activities is Rs. 23.45 lakhs.

(c) & (d) : No, Madam. The area covered under a Parliamentary Constituency is very large, whereas the peripheral area of operation of PGCIL, which is nucleus area for developmental intervention, is miniscule as compared to the Parliamentary Constituency.

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ANNEX

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1928 ANSWERED IN THE LOK SABHA ON 05.05.2016.

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Sl. No.	Project Details	Year
1	Medical Treatment/ Nutritionment of 250 malnourished children of nearby villages of POWERGRID Bina S/s for a period of Six months under Project Sanjeevani of State Govt.	2014-15
2	Ambulance at Civil Hospital Bina	2015-16

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1930
ANSWERED ON 05.05.2016

LATEST TECHNOLOGY FOR POWER GENERATION

†1930. SHRIMATI RANJANBEN BHATT:

Will the Minister of POWER
be pleased to state:

(a) whether the Government proposes to bring the best power generation techniques to the country, if so, the details thereof;

(b) whether the Government has taken any steps in this regard till date;

(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 AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) to (d) : Supercritical technology has already been adopted to enhance the efficiency of coal fired thermal power plants. The first supercritical unit of 660 MW was commissioned in December, 2010 and as on date, 52 supercritical units with a total capacity of 35,610 MW have been commissioned. In addition, large number of supercritical units of 660/800 MW size consisting of capacity of approximately 45,000 MW are under construction. It is expected that all coal fired capacity addition for power generation in 13th Plan and beyond shall be through Supercritical units.

For indigenous development of Advanced Ultra Supercritical technology, an MoU has been signed between Indira Gandhi Centre for Atomic Research (IGCAR), NTPC and BHEL.

The hydro power sector in India is already using the latest state of the art technologies which are prevalent worldwide. The operational capabilities, efficiency, flexibility and reliability aspects of the equipment/system used in hydro power generation are comparable to the best practices being followed internationally.

Some of the recent advances adopted in hydro power generation are greaseless turbine components, improved generators component, variable speed technologies and adjustable speed pump turbine, improved control and instrumentation system, improved governor technology, improved insulation resulting in compact generator etc.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1939
ANSWERED ON 05.05.2016

MANGDECHHU HYDROELECTRIC PROJECT

†1939. SHRI DHARMENDRA YADAV:
SHRI ANANDRAO ADSUL:

Will the Minister of POWER
be pleased to state:

(a) whether India is implementing Mangdechhu Hydroelectric Project in Bhutan under bilateral agreement, if so, the details thereof;

(b) whether Mangdechhu Hydroelectric Project is one among the ten Hydroelectric Projects planned under the Royal Government of Bhutan's initiative to generate 10,000 MW hydropower by 2020 with support from the Government of India, if so, the details thereof;

(c) whether any agreement has been signed between both these Governments for implementation of Mangdechhu Hydroelectric Project, if so, the details thereof;

(d) whether the Government is likely to provide 70% loan and 30% grant for this project and if so, the details thereof; and

(e) whether surplus electricity generated through the project is likely to be supplied to India and if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) to (e) : The bilateral Inter-Governmental Agreement for implementation of the 720 MW Mangdechhu HEP in Bhutan was signed in April 2010. The project is currently under construction with a 70:30 loan-grant funding by the Government of India. Under this Agreement, surplus power from the Project, that is, the power over and above required for use in Bhutan, shall be sold to India. Mangdechhu HEP is among the agreed HEPs between India and Bhutan, which include three Inter-Governmental HEPs totalling 2940 MW, as well as 4 JV-model HEPs totalling 2120 MW.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1962
ANSWERED ON 05.05.2016

HYDRO POWER GENERATION

†1962. SHRIMATI VEENA DEVI:
SHRI R. GOPALAKRISHNAN:

Will the Minister of POWER
be pleased to state:

(a) whether vast potential is available for generating hydro electric power in the country;

(b) if so, the details thereof, State-wise;

(c) whether the Government has fixed any target for increasing power generation capacity in hydro-electric sector in the country during the current five year plan;

(d) if so, the details of the target fixed and the steps being taken to achieve the targets;

(e) whether there is any proposal for setting up of new hydro projects and for renovating/refurbishing the existing hydro projects in the country; and

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

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : As per the assessment done by the Central Electricity Authority (CEA), the identified hydro power potential of the country has been estimated as 1,48,701 MW (1,45,320 MW above 25 MW). The State-wise details are given in the Annex.

(c) & (d) : During the current Five Year Plan (2012-17), a target has been fixed for hydro capacity addition of 10,897 MW as per details given below:-

Central Sector	-	6004 MW
State Sector	-	2808 MW
Private Sector	-	2085 MW
Total	-	10897 MW

.....2.

In order to coordinate the country's hydro capacity addition programme and to ensure that targets are achieved, progress of ongoing hydro projects are reviewed regularly at the level of CEA and the Ministry of Power also monitors the progress of these projects.

(e) & (f) : 47 new Hydro Electric Projects (above 25 MW) totalling 13,502 MW are presently under construction in the country. During the XII Plan, a total of 22 hydro Renovation & Modernisation Schemes (2 in Central Sector and 20 in State Sector) having an installed capacity of about 3042 MW through uprating, life extension and restoration are expected to be completed at an estimated cost of about Rs.1353 Crores.

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ANNEX REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 1962 ANSWERED IN THE LOK SABHA ON 05.05.2016.

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STATUS OF HYDRO ELECTRIC POTENTIAL AS ON 31.03.2016

Region / State	Identified Capacity as per reassessment study	
	Total(MW)	Above 25 MW
NORTHERN		
Jammu & Kashmir	14146	13543
Himachal Pradesh	18820	18540
Punjab	971	971
Haryana	64	64
Rajasthan	496	483
Uttarakhand	18175	17998
Uttar Pradesh	723	664
Sub Total (NR)	53395	52263
WESTERN		
Madhya Pradesh.	2243	1970
Chhattisgarh	2242	2202
Gujarat	619	590
Maharashtra	3769	3314
Goa	55	55
Sub Total (WR)	8928	8131
SOUTHERN		
Andhra Pradesh	2366	2341
Telangana	2058	2019
Karnataka	6602	6459
Kerala	3514	3378
Tamil Nadu	1918	1693
Sub Total (SR)	16458	15890
EASTERN		
Jharkhand	753	582
Bihar	70	40
Odisha	2999	2981
West Bengal	2841	2829
Sikkim	4286	4248
Sub Total (ER)	10949	10680
NORTH EASTERN		
Meghalaya	2394	2298
Tripura	15	0
Manipur	1784	1761
Assam	680	650
Nagaland	1574	1452
Arunachal Pd	50328	50064
Mizoram	2196	2131
Sub Total (NER)	58971	58356
ALL INDIA	148701	145320

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1968
ANSWERED ON 05.05.2016

UDAY SCHEME

†1968. SHRI RAJESH VERMA:

Will the Minister of POWER
be pleased to state:

(a) whether all the State Governments are extending cooperation in reforms being made by the Union Government in the power sector and in implementing UDAY Scheme;

(b) if so, the details thereof;

(c) if not, whether the Union Government had issued any guidelines to impress upon those State Governments in this regard; and

(d) if so, the details thereof and their response thereto, State/UT-wise?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) to (d) : The Government of India has launched a scheme Ujwal DISCOM Assurance Yojana (UDAY) on 20-11-2015 for the operational and financial turnaround of State owned Power Distribution Companies (DISCOMs). The scheme is optional for the States to join. The Ministry of Power is following up with the States on regular basis through various fora for joining UDAY and handholding them for the purpose. 18 States and one Union Territory viz. Puducherry have given their 'in-principle' approval to join UDAY. So far, 10 States namely Jharkhand, Chhattisgarh, Rajasthan, Uttar Pradesh, Gujarat, Bihar, Punjab, Jammu & Kashmir, Haryana and Uttarakhand have already signed the Memorandum of Understanding (MoUs) with Ministry of Power under UDAY. On the requests from State Governments, UDAY has been made available to such State Governments where distribution of electricity is being done by the State Power Departments and also to such DISCOMs which are not financially stressed but desire for enhancing operational efficiency.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1974
ANSWERED ON 05.05.2016

PSUs UNDER POWER SECTOR

1974. SHRI RAYAPATI SAMBASIVA RAO:

Will the Minister of POWER
be pleased to state:

(a) the details of the major PSUs under the Ministry along with financial status, PSU-wise;

(b) the flagship programmes of the Ministry;

(c) the budgetary allocation made for the Ministry during the last 2 years;

(d) whether the budgetary allocation made was left unutilised during the said period; and

(e) if so, the details thereof and the reasons therefor?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : The details of the major PSUs under the Ministry of Power along with financial status are given in Annex-I.

(b) : The flagship programmes of Ministry of Power are:

i. Deen Dayal Upadhaya Gram Jyoti Yojana (DDUGJY)- A scheme to ensure adequate and quality power supply in rural areas and also to provide access to electricity to villages/households covering all aspects of power distribution in rural areas.

ii. Integrated Power Development Scheme (IPDS) - A scheme to facilitate state utilities to ensure quality and reliable 24X7 Power supply in urban areas.

(c) to (e) : The scheme wise budgetary allocations as well as expenditure made for the Ministry of Power for the last two years (2014-15 and 2015-16) is given at Annex-II. During Financial Year 2015-16, there were no savings. However, in the FY 2014-15, the details of savings and the reasons thereof are given at Annex-III.

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ANNEX-I

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1974 ANSWERED IN THE LOK SABHA ON 05.05.2016.

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Details of major PSUs under Ministry of Power

Sl. No.	Name of the PSU	Major Operations	Net Worth (Rs. Crores)
1	National Thermal Power Corporation Ltd. (NTPC) (A Maharatna Company)	Constructions and operating power stations	81,657.00
2	National Hydroelectric Power Corporation Ltd. (NHPC) (A Mini Ratna company)	To plan, promote and organize an integrated an efficient development of hydroelectric power	30,664.53
3	Power Grid Corporation of India Ltd. (PGCIL) (A Maharatna Company)	Integrated development of Inter-state transmission system in the country	38,037.07
4	Power Finance Corporation (PFC)(A Navratna Company)	Power sector public financial institution and non-banking financial company for providing fund and non-fund based support for development of Indian Power Sector	34,667.00
5	Rural Electrification Corporation Ltd. (REC) (A Navratna Company)	Financing scheme for extending and improving the rural electrification infrastructure	24,857.00
6	North Eastern Electric Power Corporation (NEEPCO) (A Mini-Ratna Company)	To plan, promote, investigate, survey, design, construct, generate, operate and maintain both hydro and thermal power stations	6161.67

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ANNEX REFERRED TO IN REPLY TO PARTS (c) TO (e) OF UNSTARRED QUESTION NO. 1974 ANSWERED IN THE LOK SABHA ON 05.05.2016.

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Budgetary allocation and expenditure to MoP during 2014-15 and 2015-16					
				Rs in crore	
Sl No	Name of Scheme	2014-15		2015-16	
		BE	Actual	BE	Actual
	1	2	3	4	5
A	GBS to CPSUs				
1	NHPC	478.80	436.98	200.00	300.00
2	THDCIL	62.92	55.79	30.00	30.00
3	NEEPCO	142.10	41.03	75.00	27.70
	Sub total A	683.82	533.80	305.00	357.70
B	GBS to Other MoP Schemes				
1	RGGVY	5144.09	2874.41	0.00	0.00
2	National Electricity Fund (NEF)	50.69	1.00	20.00	7.00
3	R-APDRP	1261.04	595.25	0.00	0.00
4	CPRI	295.53	79.82	125.00	37.28
5	EC including NMEEE	107.65	32.73	60.00	54.82
6	BEE	139.55	9.00	50.00	37.00
	Total (EC+BEE)	247.20	41.73	110.00	91.82
7	NPTI	60.52	8.89	40.00	23.60
8	CEA	46.29	0.00	30.00	6.22
9	Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	175.18	100.00	150.00	150.00
10	220kV Transmission Line from Srinagar to Leh via Kargil	268.14	268.14	250.00	250.00
11	Finacial Support for Debt Restructuring of DISCOMs*	400.00	0.00	74.20	0.00
12	Power System Improvement Project in NE Region (Except Sikkim & Arunachal Pradesh)	200.00	150.00	250.00	247.33
13	Green Energy Corridors	1.00	0.00	1.00	0.00
14	Power System Operation Company	1.00	0.00	1.00	0.00
15	Smart Grid	1.00	0.00	40.00	1.32
17	Power Sector Support to NCT of Delhi	200.00	200.00	0.00	0.00
18	Deendayal Upadhyaya Gram Jyoti Yojana	500.00	500.00	4500.00	4500.00
19	Integrated Power Development Scheme	100.00	50.00	600.00	1001.55
20	Assistance to FOR for Capacity Building	2.25	0.75	1.00	0.89
21	Funds for Evaluation Studies and Consultancy	1.50	0.05	0.30	0.00
22	Comprehensive Award Scheme for Power Sector	1.00	0.15	1.00	0.17
23	JERC Manipur & Mizoram	0.00	0.00	0.00	0.00
24	Computerisation & Office Expenses	0.75	0.75	1.24	1.23
26	PSDF (Non-gas)	1.00	185.46	300.00	175.00
	PSDF (Gas)	0.00	0.00	0.00	975.74
27	Sub total B	8958.18	5056.40	6494.74	7469.15
28	Total (A)+(B)	9642.00	5590.21	6799.74	7826.84
	Note: Expenditure during FY 2015-16 in excess of BE has been made out of approved supplementary grant.				

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ANNEX-III

ANNEX REFERRED TO IN REPLY TO PARTS (c) TO (e) OF UNSTARRED QUESTION NO. 1974 ANSWERED IN THE LOK SABHA ON 05.05.2016.

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During the year 2014-15, the Ministry of Power's Gross Budgetary Support (GPS) was reduced to Rs. 5700 crore from the BE level of Rs. 9642 crore. As a result, the allocation of funds under the two flagship schemes had to be curtailed at the RE stage as well as in many other small schemes. The position in respect of BE, RE and Actual utilization along with reasons for variation is tabulated below:

Sl. No.	Name of the Schemes/ CPSU	BE 2014-15	RE 2014-15	Actual 2014-15	Reasons for improper utilization/shortfall
1	2	3	4	5	6
1.	RGGVY	5144.09	2886.38	2874.41	Due to lower allocation at RE stage, the expenditure could not reach BE level.
2.	R-APDRP	1261.04	595.26	595.25	Due to lower allocation at RE stage, the expenditure could not reach BE level. The outlay RE level is to be utilized fully by the end of Financial Year.
2-A	Integrated Power Development Scheme	100.00	100.00	50.00	The release was restricted to Rs 50 crore by Ministry of Finance, when they were approached by Ministry of Power for relaxation of the 33% expenditure ceiling in the last quarter of FY 2014-15.
3.	NHPC	478.80	436.98	436.98	Due to lower allocation at RE stage, the expenditure could not reach BE level.
4.	NEEPCO	142.10	41.03	41.03	Utilization of funds had to be restricted due to lower allocation at RE stage.
5.	THDCIL	62.92	55.79	55.79	Utilization of funds had to be restricted due to lower allocation at RE stage.
6.	Power System Improvement Project for NER	200.00	150.00	150.00	Due to lower allocation at RE stage, expenditure could not reach the BE level.
7.	Transmission system of AP & Sikkim	175.18	100.00	100.00	Due to lower allocation at RE stage, expenditure could not reach the BE level.
8.	Energy Conservation	107.65	40.72	32.73	Saving is due to delay in approval of the scheme and due to non-finalization of proposed scheme NMEEE.
9.	Central Power Research Institute (CPRI)	295.53	79.82	79.82	The appraisal and approval for the continuation of the scheme during the 12th Plan could be obtained only in the later half of the current financial year. Therefore, the utilization is very low when compared to BE.
10.	Bureau of Energy Efficiency	139.55	10.00	9.00	The funds allocated under RE stage of Rs. 10 cr. is in the process of being released. The delay is due to the fact that the appraisal and approval of the Schemes could be obtained only in the latter half of the financial year.

11.	Power System Development Fund	1.00	200.00	185.46	Due to less number of projects ready for release of funds
12.	National Electricity Fund	50.69	1.00	1.00	The scheme requires a number of mandatory conditions to be fulfilled. As Discoms have not been able to fulfill the conditions, no funds could be utilized. None of the participating States have filed any claims. Therefore, only a token provision was proposed at RE stage keeping in view the cut in budget allocation for MoP at RE stage.
13.	Financial support for DISCOMs	400.00	1.00	0.00	The scheme requires a number of mandatory conditions to be fulfilled. As Discoms were not able to fulfill the conditions, no funds could be utilized. None of the participating States have filed any claims. Therefore, only a token provision was proposed at RE stage keeping in view the cut in budget allocation for MoP at RE stage.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.1986
ANSWERED ON 05.05.2016

PENSIONARY BENEFITS TO ELECTRICITY DEPARTMENT

1986. SHRI BISHNU PADA RAY:

Will the Minister of POWER
be pleased to refer to the reply given to USQ No. 3022 dated 17 December, 2015 on "Mazdoors of Electricity Department of Andaman and Nicobar Islands" and to state the progress made in giving retiral and pensionary benefits to those mazdoors of the electricity department of the Islands?

A N S W E R

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

(SHRI PIYUSH GOYAL)

The proposal for giving retiral and pensionary benefit to 495 Mazdoors of Electricity Department of Andaman and Nicobar Islands for compliance of order of Hon'ble High Court was taken up with Department of Expenditure (Ministry of Finance), Department of Personnel & Training (DoP&T) and Electricity Department of Andaman and Nicobar Islands for implementation of the Hon'ble Court order.

A meeting on this issue was held in Department of Personnel & Training, Ministry of Personnel, Public Grievances and Pensions on 08th February, 2016. DoP&T has observed that regularisation of casual labour can be done as per the Scheme of 1993, which provides for regularizing the services of only those Causal Labours who have been granted temporary status as per the Scheme. The petitioners do not fulfil the criteria. The Hon'ble Supreme Court has held in many cases that Courts do not have the jurisdiction to direct creation of posts. Moreover, it is not possible to create posts with retrospective effect. Due to wide ramifications of action taken by the A&N Administration, DoP&T has advised to consult Ld. ASG on filing an SLP against the Hon'ble High Court's Order. Accordingly, A&N Administration has been requested to take necessary action in the matter.

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2001
ANSWERED ON 05.05.2016

PER CAPITA CONSUMPTION OF POWER

2001. SHRI C.S. PUTTA RAJU.:
SHRI RAMSINH RATHWA:

Will the Minister of POWER
be pleased to state:

(a) whether it is a fact that per capita consumption of energy is very less in the country as compared to developed countries;

(b) if so, the details in this regard and the major factors contributing to this less consumption;

(c) whether any target has been set by the Government in regard to the per capita availability of power to the people and if so, the details thereof including the present per capita availability of power; and

(d) the steps being taken by the Government to achieve the targets?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : Yes, Madam. The per capita consumption of electricity of India is less than the developed countries. As reported on International Energy Agency (IEA) website, the per capita electricity consumption of some of the developed countries for the year 2012 & 2013 is given at Annex. The per capita consumption of India during the years 2012-13 and 2013-14 was 914 kWh and 957 kWh respectively.

The low per capita consumption is mainly due to large population, low per capita income and less access to electricity to some sections of the population in the country.

(c) : The target for per capita consumption for the year 2015-16 was 1,101 kWh. The per capita consumption during 2015-16 was about 1,075 kWh (provisional).

.....2.

(d) : The steps taken by the Government to achieve the target, inter-alia, are:

(i) Capacity addition of 1,18,537 MW (including 88,537 MW conventional and 30,000 MW renewable) during the 12th Plan, i.e. by 2016-17. As against this, about 85,186 MW from conventional sources and about 17,952 MW from renewable sources have been achieved till 31st March, 2016.

(ii) Construction of 1,07,440 ckm transmission lines and setting up of 2,82,740 MVA transformation capacity during the 12th Plan, i.e. by 2016-17 has been planned. As against this, 84,070 ckm of transmission lines and 2,49,398 MVA of transformation capacity have been achieved till 31st March, 2016.

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

(iv) Two new schemes are being implemented by the Government of India, namely, Deendayal Upadhyaya Gram Jyoti Yojna (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.

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

(vi) Central Government has notified a new scheme namely Ujjawal Discom Assurance Yojana (UDAY) on 20.11.2015 for Operational & Financial Turnaround of Discoms which will facilitate, inter-alia, reliable, adequate and sufficient power supply to consumers.

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

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

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ANNEX

ANNEX REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 2001 ANSWERED IN THE LOK SABHA ON 05.05.2016.

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Details of Per Capita Consumption of various developed countries in 2012 & 2013

Sl. No.	Per Capita Consumption (kWh)*		
	Country	2012	2013
1	Canada	15558	15520
2	USA	12947	12987
3	Australia	10218	10067
4	Japan	7753	7836
5	France	7367	7382
6	Germany	7138	7022
7	Korea	10346	10428
8	UK	5452	5409
9	Russia	6602	6562
10	Italy	5277	5124
11	South Africa	4410	4328
12	Brazil	2509	2583
13	China	3475	3766
14	World	2972	3026
Note :-	Basic data obtained from IEA Website		
*kWh (kilo watt hours)			

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2009
ANSWERED ON 05.05.2016

STALLED POWER PROJECTS

2009. SHRI BHEEMRAO B. PATIL:
SHRI DALPAT SINGH PARASTE:
SHRI R. DHRUVA NARAYANA:

Will the Minister of POWER
be pleased to state:

(a) the capacity addition so far to the electricity supply during the 12th Plan period as a percentage of the proposed addition;

(b) the details of the hydroelectric power projects which are stalled and investments which have been held up due to these projects, State/UT-wise;

(c) the impact of the stalled power projects on the Government's plan to ensure 24X7 electricity supply across the country and the time period within which this could be achieved; and

(d) the steps being taken by the Government to rejuvenate the hydropower sector in the country?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : A generation capacity addition target of 88,537 MW excluding 30,000 MW of Renewable Energy Sources (RES), was fixed for 12th Five Year Plan. During first four years of the 12th Plan, i.e. during 2012-13 to 2015-16, a capacity of 84,990.7 MW has been achieved from Conventional Energy Sources, which is 95.99% of the target fixed for the entire Plan period.

(b) : Details of stalled hydroelectric power projects and investments therein are given at Annex.

(c) : Ministry of Power have taken a joint initiative with State Governments for preparation of State specific documents for providing 24X7 Power For All. In these documents, an assessment of energy required to provide 24X7 Power For All for connected and unconnected consumers, adequacy of power to the State from various generating sources, inter-state transmission system, intra-state transmission system and distribution to ensure 24X7 power supply has been made. As more than 95% of the capacity addition target for the 12th Five Year Plan has already been achieved during first four years of the plan, therefore, the stalled hydro projects, which constitute only 4341 MW of the generation capacity, are not expected to impact the Government's plan to ensure 24X7 electricity supply across the country in a significant way.

.....2.

(d) : The major steps taken by the Government to rejuvenate the hydropower sector in the country are as under:-

i) National Electricity Policy, 2005 placed maximum emphasis on full development of the feasible hydro potential in the country.

ii) Hydro Power Policy- 2008 , inter-alia , consists of the following measures:-

- ✓ Transparent selection criteria for awarding sites to private developers.
- ✓ Enables developer to recover his additional costs through merchant sale of upto a maximum of 40% of the saleable energy. 5% reduction for a delay of every six months. Balance long term Power Purchase Agreements (PPAs).
- ✓ For 10 years from the Commercial Operation Date (COD), developer to provide 100 units of electricity per month to each Project Affected Family, in cash or kind or a combination of both.
- ✓ Additional 1% free power from the project (over and above 12% free power earmarked for the host State) for a Local Area Development Fund, as a regular revenue stream for welfare schemes, creation of additional infrastructure and common facilities.
- ✓ The State Governments would also contribute a matching 1% from their share of 12% free power.

iii) National Rehabilitation & Resettlement Policy 2007 was notified to address the need to provide succor to the Project Affected Families (PAFs) and the Administration for Resettlement & Rehabilitation to enable timely completion of project with a sense of definiteness as regards costs and adequate attention to the needs of the displaced persons.

iv) Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 has been notified by the Govt. of India on 27.09.2013 which have more participation of local people in terms of Land acquisition and Rehabilitation & Resettlement.

v) The Amendments in Tariff Policy have been notified on 28.01.2016. One of the main objectives of the Policy is to promote Hydroelectric Power generation including Pumped Storage Projects (PSP) to provide adequate peaking reserves, reliable grid operation and integration of variable Renewable Energy Sources. The policy consists of the following provisions to boost the Hydroelectric Power sector:

- ✓ Hydropower excluded from Renewable Purchase Obligation (RPO) (8% of the total consumption excluding Hydro power).
- ✓ Hydro projects through long term PPAs are exempted from competitive bidding till August, 2022.
- ✓ Enabling provision for suitable regulatory framework incentivizing Hydroelectric Projects for using long term financial instruments - in order to reduce tariff burden in the initial years.
- ✓ Developer shall have the option of charging lower rate of depreciation vis-à-vis the ceiling determined by Central Electricity Regulatory Commission (CERC).

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ANNEX

ANNEX REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 2009 ANSWERED IN THE LOK SABHA ON 05.05.2016.

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STALLED HYDRO ELECTRIC PROJECTS

Sl. No.	State	Name of Project/ Executing Agency / Capacity (MW)	Latest Anticipated Cost (Rs. Crores)	Expenditure (Up to)
CENTRAL SECTOR				
1	Uttarakhand	Lata Tapovan, NTPC 3x57=171 MW	1,527	143 (Jan-16)
2	Arunachal Pradesh / Assam	Subansiri Lower NHPC 8x250=2000 MW	18,063.89	8,357.23 (Mar-16)
PRIVATE SECTOR				
3	M. P.	Maheshwar SMHPCL 10x40= 400 MW	6,793	3,135
4	Sikkim	Teesta VI Lanco Teesta Hydro Power Ltd. 4x125=500 MW	5,400	3,144.00 (Jun-15)
5	Sikkim	Rangit-IV Jal Power Corp. Ltd. (JPCL) 3x40= 120 MW	1,627.83	804.37 (Aug-15)
6	Sikkim	Panan Himagiri Hydro Energy Pvt Ltd. 4x75 = 300 MW	1,833.05	153
7	J&K	Ratle GVK Ratle Hydro Electric Project Pvt. Ltd. 4x205+1x30=850MW	5,517.02	373.80 (03/2016)

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2038
ANSWERED ON 05.05.2016

POWER PLANTS IN NORTH-EASTERN REGION

2038. SHRI BADRUDDIN AJMAL:

Will the Minister of POWER
be pleased to state:

(a) the details of power plants which are presently functional in North-Eastern States and the capacity of those plants, State-wise;

(b) whether Government has any plan to set up more power plants in North-Eastern States to fight the power crisis which is halting the progress of the region;

(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 AND NEW & RENEWABLE ENERGY

(SHRI PIYUSH GOYAL)

(a) : The State-wise details of power plants which are presently functional in North-Eastern States and the capacity of those plants is given at Annex-I.

(b) to (d) : The details of thermal and hydro power plants which are presently under construction in North-Eastern States are given at Annex-II and Annex-III respectively.

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ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2038 ANSWERED IN THE LOK SABHA ON 05.05.2016.

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State-wise details of power plants which are presently functional in North-Eastern States

State	Fuel	Implementing Agency	Name of the Station	Capacity as on 31.03.2016
ARUNACHAL PRADESH	HYDRO	NEEPCO.	RANGANADI HPS	405
ASSAM	COAL	NTPC Ltd.	BONGAIGAON TPP	250
	NATURAL GAS	NEEPCO.	KATHALGURI CCPP	291
	HYDRO	NEEPCO.	KOPILI HPS.	225
	MULTI FUEL	APGPCL	CHANDRAPUR(ASSAM) TPS	60
	NATURAL GAS	APGPCL	LAKWA GT	157.2
			NAMRUP CCPP	119
	HYDRO	APGPCL	KARBI LANGPI HPS	100
ASSAM Total				1202.2
MANIPUR	HYDRO	NHPC	LOKTAK HPS	105
	DIESEL	ED, Manipur	LEIMAKHONG DG	36
MANIPUR Total				141
MEGHALAYA	HYDRO	NEEPCO.	KHONDONG HPS	50
	HYDRO	MeECL	KYRDEMKULAI HPS	60
			MYNTDU(LESHKA) St-1 HPS	126
			UMIAM HPS ST-I	36
			UMIAM HPS ST-IV	60
MEGHALAYA Total				332
NAGALAND	HYDRO	NEEPCO.	DOYANG HPS	75
NAGALAND Total				75
TRIPURA	NATURAL GAS	NEEPCO.	AGARTALA GT	109.5
			MONARCHAK CCPP	101
		ONGC	TRIPURA CCPP	726.6
	NATURAL GAS	TSECL	BARAMURA GT	58.5
			ROKHIA GT	111
TRIPURA Total				1106.6
NER Total				3261.8

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ANNEX-II

ANNEX REFERRED TO IN REPLY TO PARTS (b) to (d) OF UNSTARRED QUESTION NO. 2038 ANSWERED IN THE LOK SABHA ON 05.05.2016.

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Details of Under Construction Thermal Power Projects in the country (As on 25-04-16)							
S.No	State	Project Name / Implementing Agency	Unit No	Cap. (MW)	Original Commissioning Schedule	Anticipated Commissioning Schedule	Fuel
CENTRAL SECTOR							
1	*Assam*	Bongaigaon TPP/ NTPC	U-2	250	May-11	Apr-17	Coal
			U-3	250	Sep-11	Jun-17	
2	Tripura	Agartala / NEEPCO	ST-1	25.5	Mar-15	May-16	Gas
		Total Central Sector		525.5			
STATE SECTOR							
1	*Assam*	Namrup CCGT / APGCL	GT	70	Sep-11	Jul-16	Gas
			ST	30	Jan-12	Sep-16	
Total State Sector				100			
Grand Total				625.5			

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ANNEX-III

ANNEX REFERRED TO IN REPLY TO PARTS (b) to (d) OF UNSTARRED QUESTION NO. 2038 ANSWERED IN THE LOK SABHA ON 05.05.2016.

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Hydro Electric Projects (above 25 MW) - Under Construction in the North-Eastern Region (As on 31.03.2016)

Sl. No.	Name of Scheme (Executing Agency)	Sector	I.C. (No. x MW)	Cap. Under Execution (MW)	Anticipated Commissioning Date
	Arunachal Pradesh				
1	Kameng (NEEPCO)	Central	4x150	600.00	2016-17
2	Pare (NEEPCO)	Central	2x55	110.00	2016-17
3	Subansiri Lower (NHPC)	Central	8x250	2000.00	2020-21 *
4	Gongri (Dirang Energy)	Private	2x72	144.00	2019-20
	Sub-total: Arunachal Pradesh			2854.00	
	Meghalaya				
5	New Umtru (MePGCL)	State	2x20	40.00	2016-17
	Sub-total: Meghalaya			40.00	
	Mizoram				
6	Tuirial (NEEPCO)	Central	2x30	60.00	2017-18
	Sub-total: Mizoram			60.00	
	Total:			2954.00	

* Subject to restart of works

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GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2048
ANSWERED ON 05.05.2016

BURNT TRANSFORMERS

†2048. SHRI ALOK SANJAR:
SHRI LAKHAN LAL SAHU:

Will the Minister of POWER
be pleased to state:

(a) whether complaints have been received regarding frequent burning of transformers installed under the Rajiv Gandhi Grameen Vidyutikaran Yojana/ DDUGJY;

(b) if so, the State-wise details thereof along with the reasons therefor and the time by which these burnt transformers are likely to be changed; and

(c) the remedial steps taken/being taken by the Government for finding a solution of this problem?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) & (b) : The problem of burning of distribution transformers was reported by a few States mainly Bihar & Jharkhand during the year 2011-12. Subsequently, it was decided to install higher capacity transformers of 63 and 100 KVA capacity as recommended by the State in place of earlier installed 16 KVA and 25 KVA transformers. Accordingly, higher capacity transformers have been allowed in XII Plan RE component of DDUGJY. A team of officers from Central Electricity Authority, Rural Electrification Corporation & Implementing Agencies visited the States of Bihar & Jharkhand in August 2012 to enquire the issues of failure of distribution transformers (DTs). The common causes of failure of transformers was over loading and by passing of protection of DTs.

(c) : To minimize the instances of burning of transformers, higher load of 250 watts for Below Poverty Line (BPL) connections and 500 watts for Above Poverty Line (APL) connections has been considered while determining the capacity of distribution transformers.

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