

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.224
ANSWERED ON 01.12.2016

SHARE OF HYDROPOWER IN ENERGY MIX

*224. SHRI RAHUL SHEWALE:
DR. PRITAM GOPINATH MUNDE:

Will the Minister of POWER
be pleased to state:

- (a) whether the share of hydropower in the country's energy mix is decreasing and if so, the details thereof and the reasons therefor;
- (b) whether a number of hydropower projects have been delayed, hampering the Government's efforts to increase power generation and if so, the details and the reasons therefor, project-wise; and
- (c) whether the Government proposes to supply adequate power at affordable prices and double electricity generation capacity by 2019, and if so, the steps being taken by the Union Government in this regard?

A N S W E R

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

(SHRI PIYUSH GOYAL)

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

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (c) OF STARRED QUESTION NO.224 ANSWERED IN THE LOK SABHA ON 01.12.2016 REGARDING SHARE OF HYDROPOWER IN ENERGY MIX.

(a) : The percentage of hydropower in the total installed capacity has declined from a maximum of about 51% (2,936 out of a total of 5,801 MW) in the year 1962-63 to about 14% (43,112 MW out of total 3,07,278 MW) as on 31.10.2016.

The reasons for decrease in share of Hydro Power include larger and accelerated capacity addition in thermal sector to meet growing energy demand, long gestation period of hydro power projects, geological surprises, rehabilitation & resettlement issues, funds constraint in private sector projects etc.

(b) : Presently, 44 HEPs with an aggregate capacity of 13182 MW are under construction out of which 42 HEPs with a capacity of 12966 MW have been delayed. The project wise details / reasons for the delay are given in Annex-I.

Apart from the above, 39 HEPs with an aggregate capacity of 22319 MW have been concurred by the Central Electricity Authority (CEA) which are yet to be taken up for construction due to various reasons including Environment and forest clearance and other related issues as given in Annex-II.

(c) : Electricity is a concurrent subject. Providing affordable electricity in a State / UT is within the purview of the respective State Government / State Power Utility. The Central Government supplements the efforts of the State Governments by establishing power plants and transmission systems in the Central Sector through Central Power Sector Undertakings (CPSUs).

The following steps have been taken to assist the States/UTs to provide adequate power to States/UTs:

- (i) During the 12th Plan period (2012-17), a capacity addition of about 88928.2 MW against the target of 88537 MW from conventional sources have been achieved till 31st October, 2016 and about 21,128 MW against the target of 30000 MW from renewable sources have been achieved till 30th September, 2016.
- (ii) Due to large generation capacity addition, the electricity energy shortage in the country has reduced to 0.7% during the current year 2016-17 (upto October, 2016) from 8.7% during the year 2012-13.

- (iii) Adequate supply of the domestic coal to power plants has been ensured. The growth of domestic coal supply to power plants has been around 6.2% during 2015-16.
- (iv) During the 12th Plan period (2012-17), 1,00,468 ckm against the target of 1,07,440 ckm of transmission lines and 2,88,458 MVA against the target of 2,82,750 MVA of transformation capacity have been completed till 31st October, 2016.
- (v) 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.
- (vi) Two new schemes have been launched by the Government of India, namely, Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development Scheme (IPDS) for strengthening of sub-transmission and distribution networks and for segregation of agricultural feeders to give adequate and reliable supply and reduce line losses.
- (vii) Central Government has notified Ujjwal Discom Assurance Yojana (UDAY) scheme on 20.11.2015 for Operational & Financial Turnaround of DISCOMs.
- (viii) Government of India has launched a scheme by providing support from Power System Development Fund (PSDF) for operationalisation of stranded gas based generation.

ANNEX REFERRED TO IN PART (b) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 224 ANSWERED IN THE LOK SABHA ON 01.12.2016 REGARDING SHARE OF HYDROPOWER IN ENERGY MIX.

DETAILS OF UNDER CONSTRUCTION HYDRO ELECTRIC PROJECTS (ABOVE 25 MW)

HAVING TIME/COST OVERRUN

Sl. No	Project Name/(I.C.)/ Executing Agency	State	Unit No.	Cap. (MW)	Org. Comm. Sched.	Rev. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Reasons for time and cost over run
1	2	3	4	5	6		7	8	9
CENTRAL SECTOR									
1	Tapovan Vishnughad (4x130 = 520 MW) NTPC	Uttarakhand	1 2 3 4	130 130 130 130	2012-13 2012-13 2012-13 2012-13 (Mar'13)	2015-16 2015-16 2015-16 2015-16 (Mar'16)	2019-20 2019-20 2019-20 2019-20 (June'19)	84	<ul style="list-style-type: none"> ➤ Heavy water ingress due to bad geology in HRT and rock fall on TBM. TBM struck up thrice. ➤ Flash flood in June, 2013 & Aug'12 damaging coffer dam. ➤ Termination of civil contracts for Barrage and HRT.
2	Lata Tapovan (3x57 = 171 MW) NTPC	Uttarakhand	1 2 3	57 57 57	2017-18 2017-18 2017-18 (Aug'17)		2021-22 2021-22 2021-22 (subject to re-start of works)	48	<ul style="list-style-type: none"> ➤ Flash flood during June, 2013 in Uttarakhand. ➤ Local issues / non-start of works in Barrage area ➤ Hon'ble Supreme court ban on construction works since May-14..
3	Pare (2x55 = 110 MW) NEEPCO	Arunachal Pradesh	1 2	55 55	2012-13 (Aug'12)		2017-18 2017-18	60	<ul style="list-style-type: none"> ➤ Law & Order problem. ➤ Poor geology. ➤ Poor approach roads. ➤ Flash flood during Jun-Sep -2015. Dam area inundated with water, Concreting of Dam effected for 04 months.
4	Tuirial (2x30 = 60 MW) NEEPCO	Mizoram	1 2	30 30	2006-07 2006-07 (July'06) (Jan'14) RCE-I	2013-14 2013-14 (Jan'14) RCE-I	2017-18 2017-18 (Oct'17)	132	<ul style="list-style-type: none"> ➤ 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. ➤ Poor approach roads. ➤ Slope failure in Power House. ➤ Inadequate mobilization by contractor. ➤ Late mobilization of erection contractor for E&M works.

5	Kameng (4x150 = 600 MW) NEEPCO	Arunachal Pradesh	1 2 3 4	150 150 150 150	2009-10 2009-10 2009-10 2009-10 (Dec'09)		2017-18 2017-18 2017-18 2017-18 (Critical) (Oct.'17)	96	<ul style="list-style-type: none"> ➤ Change in dam parameters. ➤ Slow progress in dam & HRT due to bad geology, heavy seepage, inadequate machinery. ➤ Flash flood in Oct. 2008 and Sept. 2012. ➤ Ingress of water in HRT. ➤ Poor approach roads. ➤ Contractual issues. ➤ Shortage of aggregate. ➤ Clearance for quarry from State Govt.
6	Tehri PSS (4x250 = 1000 MW) THDC	Uttarakhand	1 2 3 4	250 250 250 250	2010-11 2010-11 2010-11 2010-11 (July'10)	2015-16 2015-16 2015-16 2015-16 (Feb'16) RCE-I	2019-20 2019-20 2019-20 2019-20 (Sept'19)	108	<ul style="list-style-type: none"> ➤ Approval of RCE as L-1 price bid was more than cost estimate. RCE approved in Nov-2011. ➤ Litigation by bidders. ➤ Poor geology. ➤ Local agitation at Asena Quarry. ➤ Agitation at muck disposal area. ➤ Poor preparedness of contractor. ➤ Revision of Lay out of machine hall due to poor geology.
7	Parbati - II (4x200 = 800 MW) NHPC	Himachal Pradesh	1 2 3 4	200 200 200 200	2009-10 2009-10 2009-10 2009-10 (Sept'09)		2018-19 2018-19 2018-19 2018-19 (Dec'08)	108	<ul style="list-style-type: none"> ➤ Hon'ble High Court of Himachal Pradesh ban on stone crusher operation. ➤ Delay in revised forest clearance. ➤ TBM suffered extensive damage due to heavy ingress of water and slush in TBM face in Nov, 2006. ➤ Slide in Power House area in Apr-04, Jun-06 and Feb-07. ➤ Flash flood in 2004,2005,2010 and 2011. ➤ Jiwa Nallah works affected due to cavity treatment. ➤ Contractual issues.
8	Subansiri Lower (8x250 = 2000 MW) NHPC	Arunachal Pradesh/ Assam	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		2020-21 (subject to re-start of works)	120	<ul style="list-style-type: none"> ➤ Delay in transfer of forest land. ➤ Disruption of works by locals in Ar. Pradesh side. ➤ Slope failure in Power House in Jan, 2008. ➤ Damage to bridge on Ranganadi river. ➤ Change in design of surge shafts to surge tunnels. ➤ Stoppage of works due to agitation launched by Anti Dam activists in Assam against construction of Project. Work stopped since 16.12.2011. ➤ Issue of D/s impact studies. ➤ Case in NGT.

9	Kishanganga (3x110 = 330 MW) NHPC	Jammu & Kashmir	1 2 3	110 110 110	2014-15 2014-15 2014-15 (July'14) (Jan'16) RCE-I	2015-16 2015-16 2015-16 (Jan'16) RCE-I	2017-18 2017-18 2017-18	} 36	<ul style="list-style-type: none"> ➤ Approval of RCE as L-1 price bid was more than cost estimate. RCE approved in Jan.-2009. ➤ Heavy Rainfall in March, 2011. ➤ Cavity in HRT – TBM portion. ➤ Poor geology in Access tunnel. ➤ Dam works affected due to arbitration proceedings at International Court of Arbitration. ➤ Local people demanding Employment in NHPC. ➤ R&R Issues. ➤ Completion of power evacuation arrangement (PGCIL)
10	Vishnugad Pipalkoti (4x111 = 444 MW) THDC	Uttara khand	1 2 3 4	111 111 111 111	2013-14 2013-14 2013-14 2013-14 (Jun'13)		2019-20 2019-20 2019-20 2019-20 (Dec'19)	} 72	<ul style="list-style-type: none"> ➤ 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. ➤ Disruption of works by local people.
	STATE SECTOR								
11	Kashang-II & III (1x65 + 1x65 MW) =130 MW HPPCL	Himachal Pradesh	1* 2	65 65	2013-14 2013-14		Comm. 2019-20 (subject to re-start of works)	72	<ul style="list-style-type: none"> ➤ Local issues. Works could not be started due to two separate cases which are pending in NGT; out of which one of the cases has been decided in favour of HPPCL whereas in the 2nd case the application for challenging the NGT decision has been filled in the Hon'ble Supreme Court. ➤ Flash flood in June, 2013. ➤ Works stopped by contractor. ➤ Works stuck by NGT.
12	Uhi-III (3x33.33 = 100 MW) BVPCL (HPSEB)	Himachal Pradesh	1 2 3	33.33 33.33 33.33	2006-07 2006-07 2006-07		2017-18 2017-18 2017-18	} 132	<ul style="list-style-type: none"> ➤ Delay in transfer of forest land. ➤ Delay in acquisition of private land ➤ Delay in transfer of quarry sites. ➤ Delay in award of works. ➤ Contract for construction of HRT rescinded twice i.e. during April, 2008 & July, 2010 due to slow progress and non-performance by the contractor. ➤ Poor geology in HRT.

13	Sawra Kuddu (3x37 = 111MW) HPPCL,	Himachal Pradesh	1 2 3	37 37 37	2010-11 2010-11 2010-11		2018-19 2018-19 2018-19	} 96	<ul style="list-style-type: none"> ➤ Delay in MOEF clearance. ➤ Delay in award of Civil & E&M works. ➤ Poor geology in HRT. ➤ Slow progress of HRT Lining. ➤ Contractual issues ➤ Contract for HRT package terminated on 9.1.14. Re-awarded in Nov,2014 to M/s. HCC.
14	Sainj (2x50 = 100 MW) HPPCL	Himachal Pradesh	1 2	50 50	2014-15 2014-15		2016-17 2016-17	} 24	<ul style="list-style-type: none"> ➤ Slow progress of HRT and Barrage works ➤ Local issues
15	Shongtom Karcham (3x150 = 450 MW) HPPCL 16.08.2012	Himachal Pradesh	1 2 3	150 150 150	2017-18 2017-18 2017-18		2019-20 2019-20 2019-20	} 24	<ul style="list-style-type: none"> ➤ Shifting of Army Ammunition Depot. ➤ Local Issues.
16	Pulichintala (4x30 = 120 MW) TGENCO	Telangana	1# 2 3 4	30 30 30 30	2009-11 2009-11 2009-11 2009-11		2016-17 2016-17 2017-18 2017-18	Comm. 72 } 84	<ul style="list-style-type: none"> ➤ Delay in award of E&M works. ➤ Unprecedented floods in Oct.2009 & Sept.2011. ➤ Contractual issues. ➤ Slow progress of Power House works.
17	Nagarjuna Sagar Tail Pool Dam (2x25 = 50 MW) APGENCO	Andhra Pradesh	1 2	25 25	2008-09 2008-09		2016-17 2016-17	} 96	<ul style="list-style-type: none"> ➤ Slow progress of dam due to frequent flooding during 2009, 2011& 2013. ➤ Delay in award of HM works. ➤ Contractual issues in Dam works. ➤ Non-availability of water.
18	Pallivasal 2x30 = 60 MW KSEB	Kerala	1 2	30 30	2010-11 2010-11		2019-20 2019-20 (subject to re-start of works)	} 108	<ul style="list-style-type: none"> ➤ Slow progress of civil works. ➤ Delay in land acquisition. ➤ Change in alignment of Adit to HRT. ➤ Poor geology strata in HRT. ➤ Heavy Monsoon ➤ Works stopped by contractor since 28.1.15 due to contractual issues.
19	Thottiyar (1x30+1x10)= 40MW KSEB	Kerala	1 2	30 10	2012-13 2012-13		2019-20 2019-20 (subject to re-start of works)	} 84	<ul style="list-style-type: none"> ➤ Land acquisition issue. ➤ The works of weir and approach channel stopped from 2010 to 2012 by local people. ➤ The work stopped by Court from 12.12.2012 to April-2013. ➤ Contractual issues. ➤ Financial crunch with contractor.
20	New Umtru (2x20 =40 MW) MePGCL	Meghalaya	1 2	20 20	2011-12 2011-12		2016-18 2016-18	} 72	<ul style="list-style-type: none"> ➤ Delay in Start of works. ➤ Fund Constraints. ➤ Slow progress of civil works.

21	Shahpurkandi 3x33+3x33+1x8 =206 MW, Irrigation Deptt. & PSPCL	Punjab	1 2 3 4 5 6 7	33 33 33 33 33 33 8	2017-18		2019-20 (subject to re-start of works)	24	<ul style="list-style-type: none"> Works of Dam stopped since 29.08.2014 due to inter-state dispute between states of J&K & Punjab on sharing of waters of river Ravi and Tariff.
22	Koyna Left Bank PSS 2x40 = 80 MW WRD, Maha	Maharashtra	1 2	40 40	2017-18 2017-18		2019-20 2019-20 (subject to active start of works)	24	<ul style="list-style-type: none"> Slow progress of works. Fund constraints due to increase in project cost. RCE under approval.
23	Teesta Stage III (6x200 = 1200 MW) Teesta Urja Limited	Sikkim	1 2 3 4 5 6	200 200 200 200 200 200	2011-12 2011-12 2011-12 2011-12 2011-12 2011-12		2016-17 2016-17 2016-17 2016-17 2016-17 2016-17	60	<ul style="list-style-type: none"> Delay in forest clearance. Works suffered due to earthquake in Sept.2011. Financial constraints with developer Delay in Pressure shaft works. Delay in Power Evacuation arrangement. Works stuck up for 13-months due to cash flow problem with developer.
24	Vyasi 2x60=120 MW, UJVNL	Uttarakhand	1 2	60 60	2014-15 2014-15		2018-19 2018-19	48	<ul style="list-style-type: none"> Delay in award of works
25	Polavaram (12x80 = 960 MW) PPA	Andhra Pradesh	1 to 8	80 each	2017-18		2021-22	48	<ul style="list-style-type: none"> Slow progress of works Funds constraints E&M works yet to be awarded
PRIVATE SECTOR									
26	Tidong-I 2x50 =100 MW NSL Tidong	Himachal Pradesh	1 2	50 50	2013-14 2013-14		2017-18 2017-18	48	<ul style="list-style-type: none"> Delay in NOC by Projects affected Panchayats, suspension of works by Govt. for one year.
27	Tangnu Romai-I (2x22 = 44 MW) TRPGPL	Himachal Pradesh	1 2	22 22	2014-15 2014-15		2018-19 2018-19 (subject to re-start of works)	48	<ul style="list-style-type: none"> Slow progress of civil works. Poor geology. Difficult area. Weather conditions & accessibility. Financial constraints with the developer.
28	Sorang (2x50 = 100 MW), HSPPL	Himachal Pradesh	1 2	50 50	2012-13 2012-13		2017-18 2017-18	60	<ul style="list-style-type: none"> Poor geology. Difficult area. Weather conditions & accessibility. Penstock cracks / leakage during filling of Water conductor System. Rupture in surface penstock in Nov-15 during trial run.
29	Singoli Bhatwari (3x33 = 99 MW) L&T	Uttarakhand	1 2 3	33 33 33	2012-13 2012-13 2012-13		2020-21 2020-21 2020-21 (subject to active start of works)	96	<ul style="list-style-type: none"> Poor geology in HRT. Agitation by local people. Flash flood in June,2013.
30	Phata Byung (2x38 = 76 MW), LANCO	Uttarakhand	1 2	38 38	2013-14 2013-14		2018-19 2018-19 (subject to active start of works)	60	<ul style="list-style-type: none"> Flash flood in June,2013. Poor geology in HRT.

31	Maheshwar (10x40 = 400 MW) SMHPCL	Madhya Pradesh	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		2017-19 (subject to re-start of works)	204	<ul style="list-style-type: none"> ➤ R&R issues ➤ Cash flow problem with developer
32	Teesta Stage VI (4x125 = 500 MW) Lanco Energy Pvt. Ltd.	Sikkim	1 2 3 4	125 125 125 125	2012-13 2012-13 2012-13 2012-13		2021-22 2021-22 2021-22 2021-22 (subject to re-start of works)	108	<ul style="list-style-type: none"> ➤ Poor geology. ➤ Land acquisition. ➤ Contractual issues ➤ Funds constraints with developer
33	Rangit-IV HE Project (3X40 = 120 MW) JPCL	Sikkim	1 2 3	40 40 40	2011-12 2011-12 2011-12		2018-19 2018-19 2018-19 (subject to re-start of works)	72	<ul style="list-style-type: none"> ➤ Slow progress of HRT & Surge Shaft works due to poor geology. ➤ Works hampered due to earthquake in September, 2011. ➤ Financial constraints with developer
34	Bhasmey (2x25.5 = 51 MW) Gati Infrastructure	Sikkim	1 2	25.5 25.5	2012-13 2012-13		2019-20 2019-20	84	<ul style="list-style-type: none"> ➤ Forest clearance ➤ Financial constraints with developer
35	Rongnichu (2x48 = 96 MW) Madhya Bharat Pvt. Ltd.	Sikkim	1 2	48 48	2015-16 2015-16		2019-20 2019-20	48	<ul style="list-style-type: none"> ➤ Land Acquisition ➤ Poor geology.
36	Rattle (4x205+1x30) = 850 MW Rattle HEP Pvt .Ltd.	J&K	1 2 3 4 5	205 205 205 205 30	2017-18 2017-18 2017-18 2017-18 2017-18		2021-22 2021-22 2021-22 2021-22 2021-22 (subject to re-start of works)	48	<ul style="list-style-type: none"> ➤ Slow progress of works. ➤ Works suspended since 11.7.14 due to frequent local disturbance.
37	Gongri 2x72= 144 MW Dirang Energy (P)Ltd	Ar. Pradesh	1 2	72 72	2017-18 2017-18		2019-20 2019-20 (subject to re-start of works)	24	<ul style="list-style-type: none"> ➤ Works awarded on 22.11.2011. However, consent to establish from State Pollution Control Board was issued on 19-5-14. ➤ Financial constraints with the developer.
38	Bajoli Holi 3x60= 180 MW M/s GMR Bajoli Holi	H.P.	1 2 3	60 60 60	2017-18		2019-20	24	<ul style="list-style-type: none"> ➤ Slow progress of works.
39	Rangit-II 2x33= 66 MW Sikkim HydroPower Ltd.	Sikkim	1 2	33 33	2017-18		2019-20 (subject to re-start of works)	24	<ul style="list-style-type: none"> ➤ Slow progress of works. ➤ Financial constraints with the developer.
40	Panan 4x75= 300 MW Himagiri Hydro Energy Pvt. Ltd.	Sikkim	1 2 3 4	75 75 75 75	2018-19		2020-21 (subject to active start of works)	24	<ul style="list-style-type: none"> ➤ Clearance from NWLB received in December, 2015. ➤ Clearance from NGT.
41	Tashiding 2x48.5=97 MW Shiga Energy Pvt Ltd.	Sikkim	1 2	48.5 48.5	2015-16		2016-17	12	<ul style="list-style-type: none"> ➤ Poor geology ➤ Local issues
42	Chanju-I 3x12=36 IA Energy	HP	1 2 3	12 12 12	2014-15		2016-17	24	<ul style="list-style-type: none"> ➤ Slow progress of works ➤ Poor geology
		Total		13061					

* One unit out of total two units of (2X65 MW) Kashang HEP in the State of Himachal Pradesh has already been commissioned.

One unit out of total four units of (4X30 MW) Pulichintala HEP in the State of Telangana has already been commissioned.

ANNEX REFERRED TO IN PART (b) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 224 ANSWERED IN THE LOK SABHA ON 01.12.2016 REGARDING SHARE OF HYDROPOWER IN ENERGY MIX.

Hydro Electric Schemes Concurred by CEA and yet to be taken up for construction

CATEGORY-I: Pending due to Environment and Forest Clearance issues

(a) Environment Clearance received and Forest Clearance is awaited

As on 31.10.2016

SI No	Scheme/ Sector/ State	Agency	Nos. x MW	IC (MW)	Est Cost (Rs Crs.) PL	CEA Concurrence	Const period /zero date	Remarks
1	Miyar/ Private/ HP	MHPCL	3x40	120	1125.16 (Compl.)	07.02.2013	110 months 05/13	EC accorded on 30.07.2013. FC-I accorded on 27.07.2013. Funding tie-up in process. FC-II awaited. Financial closure is in process.
2	New Ganderwal / State / J&K	JKSPDC	3x31	93	965.86 (01/14)	10.6.14	48 months 7/14	EC accorded on 27.9.13. FC awaited
3	Rupsiyabagar Khasiyabara / Central / Uttrakhand	NTPC	3x87	261	1715.15 (05/08)	16.10.08	64 months 12/09	EC accorded on 26.03.09. FC awaited.
4	Teesta St-IV / Central / Sikkim	NHPC	4x130	520	3594.74 (07/09)	13.05.10	74 months From date of CCEA clearance	EC accorded on 09.01.14. FC-I accorded on 26.02.13. FC-II awaited.
5	Dibbin / Private / Ar. Pradesh	KSKDH PL	2x60	120	728.54*	04.12.09	48 months 10/10	EC accorded on 23.7.2012. FC-I accorded on 7.2.2012 & FC-II awaited.
6	Nyamjang Chhu / Private / Ar. pradesh	BEL	6x130	780	6115.6*	24.03.11	62 months 01/12	EC accorded on 19.4.12. FC-I accorded on 9.4.2012 & FC-II awaited.
7	Tawang St-I / Central / Ar. Pradesh	NHPC	3x200	600	4824.01 (5/10)	10.10.11	78 months From date of CCEA clearance	EC accorded on 10.6.11. FC proposal forwarded by State Govt. to MOEF on 21.08.11. FC-I & II awaited.
8	Tato-II / Private / Ar. Pradesh	THPPL	4x175	700	5616.20 *	22.5.12	72 months 01/12	EC accorded on 27.6.11. FC is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF.
9	Tawang St-II / Central / Ar. Pradesh	NHPC	4x200	800	6112.3 (05/10)	22.09.11	83 months from date of CCEA clearance	EC accorded on 10.06.11. FC-I accorded on 8.01.14. FC-II awaited.

10	Siyom/ Private / Ar. pradesh	SHPPL	6x166.67	1000	12100	17.12.13	78 months 01/15	EC accorded 31.01.08. FC awaited. Forest clearance is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF.
11	Kalai-III/ Private / Ar. Pradesh	Kalai PPL	5x190+1x 190+1x60	1200	14199.64*	27.3.15	87 months,0 1/15	EC accorded 20.5.15. FC awaited
12	Heo / Private / Ar. Pradesh	HHPPL	3x80	240	1614.35	28.07.15	50 months from 09/16.	EC accorded on 31.03.15. Letter is yet to be issued. FC-I accorded 27.10.15. FC-II awaited
13	Tato-I / Private / Ar. Pradesh	SHPPL	3x62	186	1493.55	28.10.15	50 months From 01.11.16.	EC accorded on 10.11.15. FC-I accorded 27.10.15. FC-II awaited
	Sub Total			6620				

(b) Both Environment and Forest Clearance awaited.

14	Dikhu / Private / Nagaland	NMPPL	3x62	186	1994.74 (comp.)	31.03.14	52 months 01/16	FC not applicable as forest land is not involved. EC awaited.
15	Chango Yangthang Private / H. P.	MPCL	3x60	180	2077.294 (compl.)	31.03.14	58 months 04/15	EC & FC awaited.
16	Chhatru / Private / H.P.	DSC	3x42	126	1386.08 (Comp)	15.1.2015	75 months 06/17	EC recommended by MoEF on 24.02.15, letter to be issued after submission of Stage-I forest clearance. FC awaited.
17	Devsari / Central / Uttrakhand	SJVNL	3x84	252	1558.84 (06/10)	07.08.12	60 month, 01/13	EAC meeting held on 27.12.2011 recommended for EC. Letter will be issued after FC.
18	Matnar / State / Chhatisgarh	CSPCPL	3x20	60	313.35 (03/04)	19.08.04		EC & FC awaited
19	Lower Siang / Private / Ar. pradesh	JAVL	9x300	2700	19990.74*	16.02.10	114 months 01/11	EC& FC awaited
20	Hirong / Private / Ar. Pradesh	JAPL	4x125	500	5532.63*	10.04.13	78 months 01/14	EC & FC awaited. Forest clearance is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF.
21	Etalin / Private / Ar. pradesh	EHEPCL	10x307+1 x19.6+1x 7.4	3097	25296.95*	12.07.13	84 months 10/14	EC & FC awaited.

22	Talong Londa / Private / Ar. pradesh	GMR	3x75	225	2172.88*	16.08.13	60 months 11/14	EC & FC awaited. FC is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF.
23	Naying / Private / Ar. pradesh	NDSCPL	4x250	1000	9301.11	11.09.13	72 months 01/15	EC & FC awaited. FC is linked to Cumulative Impact Assessment Study of Siang Basin.
24	Kynshi - I/ Private Meghalaya	AKPPL	2x135	270	3154.37 09/2015	31.3.2015	60 months 09/16.	EC & FC awaited
25	Lower Kopili/State/ Assam	APGCL	2x55+1x5 +2x2.5	120	1115.91 1/2015	24.05.16	48 months 02/16	EC & FC awaited
26	Kiru/Central/J &K	CVPPL	4x156	624	4640.88 9/2014	13.06.16	54 months 8/16	EC & FC awaited
27	Turga PSS/State/WB	WBSPCL	4x250	1000	4234.90 12/2014	04.08.16 Meeting date	63 months 10/17	EC & FC awaited
28	Seli/ Private/HP	SHPCPL	4x100	400	4118.59	27.10.16**	88months/0 6/17	EC & FC awaited
29	Sach Khas/ Private/HP	L&T HHPL	3x86.67+1x 7	267	3390.74	27.10.16**	102months/ 05/18	EC & FC awaited
30	Tagurshit/ Private/ Ar.P.	L&T	3x24.67	74	717.04	21.10.16**	52months/ 01/17	EC & FC awaited

Environment and Forest Clearance Subjudice

31	Kotlibhel St-IA / Central / NHPC	NHPC	3x65	195	1095.77 (12/05)	03.10.06	54 months From date of CCEA clearance	EC accorded on 9.5.07. FC-I accorded on 13.10.11 & FC-II awaited. The project is included in the list of 24 projects under review by Hon'ble Supreme Court.
32	Kotlibhel St-IB / Central / NHPC	NHPC	4x80	320	1806.43 (12/05)	31.10.06	54 months From date of CCEA clearance	EC accorded earlier on 14.08.07 is withdrawn on 22.11.10. MOEF declined FC-I on 7.07.11. The project is included in the list of 24 projects under review by Hon'ble Supreme Court.
33	Kotlibhel St-II / Central / NHPC	NHPC	8x66.25	530	2535.8 6 (03/06)	30.11.06	60 months From date of CCEA clearance	EC accorded on 23.08.07. FC-I declined 5.07.11. The project is included in the list of 24 projects under review by Hon'ble Supreme Court.

34	Alaknanda / Private / NHPC	GMRL	3x100	300	1415.96*	08.08.08	69 months 03/09	EC accorded on 12.3.08, FC-I accorded on 8.11.11. FC-II accorded on 09.11.2012. The project is included in the list of 24 projects under review by Hon'ble Supreme Court.
	Sub total			1345				
	Total (pending for E&F clearance)			19046				

Category-II: Environment and Forest Clearance accorded and pending due to other reasons

35	Pakal Dul / Central / J&K	CVPP	4x250	1000	5088.88 (07/05)	03.10.06	72 months From date of CCEA clearance	EC accorded on 29.2.08 and FC-I accorded on 16.5.05 & FC-II on 15.12.15. Decision on finalization of bidding is under approval of Board of Directors.
36	Kutehr / Private / H.P.	JSWEPL	3x80	240	1798.13*	31.8.10	60 months 10/11	EC accorded on 05.07.2011. FC-I accorded 22.06.2011 and FC-II accorded on 19.02.2013. Validity of earlier bids has expired due to delay in obtaining FC-II and acquisition of Pvt. Land. Fresh bidding are being invited.
37	Nafra / Private / Ar. Pradesh	SNEL	2x60	120	848.22*	11.02.11	36 months 07/11	EC accorded on 19.08.13. FC-I accorded on 12.7.11 and FC-II accorded in 26.06.12. Financial closure cancelled. Project held up for want of final orders on diversion of forest land.
38	Demwe Lower / Private / Ar. Pradesh	ADPL	(5x342 +1x40 MW)	1750	13144.9 1*	20.11.09	61 months 04/11	EC accorded on 12.02.10. FC accorded on 26.07.13. Financial closure yet to be obtained. Petition filed in NGT against the project.
39	Athirappilly / State / Kerala	KSEB	2x80+ 2x1.5	163	385.63 (2004- 05)	31.03.05	42 months 03/05	FC accorded. EC restored on 9.10.15. Fresh tenders are being invited to award the work.
	Subtotal (Pending for other reasons)		3273					
	Total			22319				

Note: Six projects namely, Dibang (3000 MW) in Arunachal Pradesh, Loktak D/S (66 MW) in Manipur, Tipaimukh (1500 MW) in Manipur, Pana Maneri (480 MW) in Uttarakhand, Kolodyne St-II (460 MW) in Mizoram and Gundia (200 MW) in Karnataka are excluded from above list due to either Revised DPR of the scheme is to be submitted or the scheme is likely to be dropped. Jalaput Dam Toe (18 MW) of OPCL in Orissa is also excluded from the list as being small scheme. Total capacity of above schemes is 5724 MW.

(*) CC: Completion Cost EC: Environment Clearance FC: Forest Clearance JVC: Joint Venture Company

(**) Concurrence meeting date.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.227
ANSWERED ON 01.12.2016

ELECTRICAL EQUIPMENTS FOR POWER SECTOR

*227. SHRI DINESH TRIVEDI:

Will the Minister of POWER
be pleased to state:

- (a) whether the Central Electricity Authority has prescribed norms for domestic procurement of electrical equipment for power projects and if so, the details thereof;
- (b) the quantum and percentage of electrical equipments imported from China for meeting the requirements of Power Sector during the last 10 years (2006-2016);
- (c) the details of manufacturing base set up in the country to meet the electrical equipment requirements of Power Sector under Make in India Policy; and
- (d) whether any budgetary allocation was made for increasing the output of electrical equipments manufacturing in the country and if so, the details thereof and the results achieved thereon?

A N S W E R

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

(SHRI PIYUSH GOYAL)

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

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (d) OF STARRED QUESTION NO.227 ANSWERED IN THE LOK SABHA ON 01.12.2016 REGARDING ELECTRICAL EQUIPMENTS FOR POWER SECTOR.

(a) : Central Electricity Authority (CEA) issued an Advisory in February, 2010 to Central/State sector thermal generating utilities for incorporating the condition of setting up of indigenous manufacturing facilities as per Phased Manufacturing Programme (PMP) by the successful bidders in the bids to be invited for Boilers and Turbines generators of supercritical thermal power projects.

Further, in May, 2016, CEA has advised Central/State utilities in power sector as under:-

- i. In domestically funded projects, procurement of equipment/material should be from domestic/local manufacturers through local competitive bidding. If at all International Competitive Bidding (ICB) is to be resorted to, the quoted price should invariably be in Indian Rupees only to create a level playing field.
- ii. In the absence of domestic manufacturing capability, foreign suppliers may be allowed in the tendering process provided a consortium/JV is formed with an Indian bidder and shall have to establish manufacturing facility in India within a specific time frame and ensure transfer of technology in phased manufacturing programme.

(b) : The year-wise details of quantum and percentage of electrical equipments imported from China for meeting the requirements of Power Sector during the last 10 years (2006-2016) are as under:-

Import of Electric Machinery and Equipments

(value in Million USD)

Year	Import from China	Total Imports	% Share Imports from China
2006-07	444.26	2639.65	16.83
2007-08	961.93	4217.81	22.81
2008-09	1028.34	4581.74	22.44
2009-10	1273.78	4403.2	28.93
2010-11	1562.52	5614.72	27.83
2011-12	2049.24	7291.74	28.1
2012-13	1894.79	6353.48	29.82
2013-14	1726.4	5492.46	31.43
2014-15	1835.01	6061.64	30.27
2015-16	2170.23	6040.66	35.93
2016-17 (Apr-Sep)*	977.65	3123.5	31.3

* Figures Provisional

(c) : In order to meet the electrical equipment requirement of power sector, the foreign manufacturers have set up manufacturing facilities through following joint ventures with Indian partners, for manufacturing super-critical boilers and turbine generators:

- i. L&T - Mitsubishi Heavy Industries (MHI)
- ii. Alstom -Bharat Forge
- iii. Toshiba- JSW
- iv. Thermax-Babcock & Wilcox
- v. Doosan Power Systems

Further, BHEL have also entered into a technology collaboration with M/s Alstom and Siemens for manufacturing of supercritical boilers and turbine generators respectively.

(d) : No budgetary allocation has been made for increasing the output of electrical equipments manufacturing in the country.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
STARRED QUESTION NO.232
ANSWERED ON 01.12.2016

LED DISTRIBUTION SCHEME

*232. SHRI MANOJ TIWARI:

Will the Minister of POWER
be pleased to state:

- (a) the salient features of the scheme for LED bulbs distribution and National programme for LED based home and street lighting;
- (b) the States where the above schemes are under implementation along with quantum and value of power conserved since the launch of the scheme; and
- (c) whether the Union Government is planning to revamp the funding and execution pattern of "LED-Distribution Scheme", 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 (c) : A Statement is laid on the Table of the House.

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (c) OF STARRED QUESTION NO.232 ANSWERED IN THE LOK SABHA ON 01.12.2016 REGARDING LED DISTRIBUTION SCHEME.

(a) : Two initiatives viz. Unnat Jyoti by Affordable LEDs for All (UJALA) and Street Lighting National Programme (SLNP), have been initiated, wherein household lighting and street lights respectively are replaced with LEDs. It is being implemented by Energy Efficiency Services Ltd (EESL), a joint venture company of Public Sector Undertakings (PSUs) under Ministry of Power. EESL has developed an innovative business model in which the entire investment in these programmes is made by EESL and the investment is paid back over a time from energy savings. There is no element of Government of India subsidy in the scheme. EESL aggregates demand and e-procures LED bulbs to get price benefit of bulk procurement, which is passed on to the beneficiaries.

(b) : Details of the States/UTs where the above scheme is under implementation, alongwith the quantum and value of power conserved since launch of the scheme is indicated in the Annex.

(c) : UJALA programme is voluntary in nature, runs without any budgetary allocation from Government of India and is based on a sustainable business model where the cost of efficient lighting is repaid by consumer from savings in energy and maintenance expenditure over a period of time through savings in the electricity bill. There is no proposal to revamp the funding and execution pattern of "LED distribution scheme".

ANNEX REFERRED TO IN PART (b) OF THE STATEMENT LAID IN REPLY TO STARRED QUESTION NO. 232 ANSWERED IN THE LOK SABHA ON 01.12.2016 REGARDING LED DISTRIBUTION SCHEME.

Details of State/UT-wise power conserved under UJALA scheme, as on 25.11.2016

S.No.	States & UTs	No. of LED bulbs Distributed	Energy saved per year (in Million Units)	Estimated savings per year in ₹ (Crores)
1	Jammu & Kashmir	3,426,861	445.5	178.2
2	Punjab	57,679	7.5	3.0
3	Haryana	7,476,754	972.0	388.8
4	Uttarakhand	3,378,952	439.3	175.7
5	Himachal Pradesh	6,766,201	879.6	351.8
6	Delhi	7,476,754	972.0	388.8
7	Uttar Pradesh	11,134,639	1447.5	579.0
8	Rajasthan	11,880,209	1544.4	617.8
9	Gujarat	27,382,053	3559.7	1,423.9
10	Madhya Pradesh	8,808,846	1145.2	458.1
11	Bihar	7,528,176	978.7	391.5
12	Sikkim	1,397	0.2	0.1
13	Maharashtra	20,010,593	2601.4	1,040.6
14	Jharkhand	7,530,467	979.0	391.6
15	Chhattisgarh	5,698,225	740.8	296.3
16	Odisha	7,260,892	943.9	377.6
17	Nagaland	58,238	7.6	3.0
18	Assam	439,000	57.1	22.8
19	Meghalaya	50,799	6.6	2.6
20	Mizoram	9,752	1.3	0.5
21	Andhra Pradesh	19,025,756	2473.3	989.3
22	West Bengal	340,853	44.3	17.7
23	Telangana	560,485	72.9	29.1
24	Goa	720,582	93.7	37.5
25	Karnataka	13,522,393	1757.9	703.2
26	Tamil Nadu	61,018	7.9	3.2
27	Kerala	7,750,299	1007.5	403.0
28	Daman & Diu	95,010	12.4	4.9
29	Dadra & Nagar Haveli	81,177	10.6	4.2
30	Lakshadweep	100,000	13.0	5.2
31	Andaman & Nicobar Island	400,000	52.0	20.8
32	Puducherry	609,251	79.2	31.7
	Total	179,643,311	23353.6	9,341.5

Power conserved State/UT-wise under SLNP scheme, as on 25.11.2016

S. No.	States & UTs	No. of Street Lights replaced	Energy saved per year (in MUs)	Saving per year in ₹(Crores)
1	Andhra Pradesh	557,760	70.863	28.345
2	Bihar	150	0.019	0.008
3	Delhi	216,678	27.529	11.012
4	Himachal Pradesh	3,957	0.503	0.201
5	Kerala	9,657	1.227	0.491
6	Maharashtra	12,722	1.616	0.646
7	Puducherry	300	0.038	0.015
8	Rajasthan	533,754	67.813	27.125
9	Telangana	2,671	0.339	0.136
10	Tripura	36,789	4.674	1.870
11	Uttar Pradesh	30,823	3.916	1.566
12	Assam	4,498	0.571	0.228
13	Gujarat	12,989	1.650	0.660
14	Jharkhand	2,800	0.356	0.142
15	Madhya Pradesh	3,789	0.481	0.192
16	Punjab	2,812	0.357	0.143
17	West Bengal	300	0.038	0.015
18	Jammu & Kashmir	500	0.064	0.026
19	Uttarakhand	500	0.064	0.026
20	Goa	400	0.051	0.020
	Total	1,433,849	182.169	72.868

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2538
ANSWERED ON 01.12.2016

NATIONAL SMART GRID MISSION

2538. SHRIMATI POONAM MAHAJAN:
SHRIMATI VASANTHI M.:
SHRI DEVUSINH CHAUHAN:

Will the Minister of POWER
be pleased to state:

- (a) the names of the cities in the country which have been selected for National Smart Grid Mission (NSGM) in the first phase;
- (b) the funds allocated by the Government for the National Smart Grid Mission (NSGM) for the last two years and the current year, State/UT-wise;
- (c) whether his Ministry has awarded the work on all the projects of smart grids selected in cities across the country;
- (d) if so, the details thereof and if not, the reasons therefor; and
- (e) the further steps proposed to be taken by the Union Government for speeding up the development of Smart Grid Network 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) : Smart Grid Projects in the cities of Amravati (Maharashtra), Congress Nagar (Nagpur), Chandigarh and Kanpur have been sanctioned under National Smart Grid Mission (NSGM).

(b) : National Smart Grid Mission was launched on 27th March 2015. Funds allocated for NSGM were Rs.40 Crore & Rs.30 Crore for the years 2015-16 and 2016-17 respectively. No State-wise fund allocation has been made under NSGM.

(c) to (e) : The award of works sanctioned under NSGM is done by the States Power Distribution Company concerned. Thus, the question of Ministry of Power awarding the work does not arise. The NSGM Project Management Unit (NPMU) is handholding States for speeding up development of Smart Grid Network in the country

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2549
ANSWERED ON 01.12.2016

DEBTS OF DISCOMS

2549. SHRI RABINDRA KUMAR JENA:

Will the Minister of POWER
be pleased to state:

- (a) the details of debt owed by the State run DISCOMs in all the States of the country during the last five years, year and DISCOM-wise;
- (b) the details of the DISCOMs which are making profit across the country during the current fiscal year, State-wise;
- (c) the names of the States which are power deficit presently;
- (d) whether the Union Government is maintaining any data on the average tariff charged from different categories of consumers by the States; and
- (e) if so, the details thereof, 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) : As per the Report on "The Performance of State Power Utilities" published by Power Finance Corporation (PFC) Limited, the total outstanding debt for utilities selling power directly to consumers for the years 2010-11 to 2014-15 is given below:

	2010-11	2011-12	2012-13	2013-14	2014-15
Total Outstanding Debt (Rs. in crore)	193,134	229,924	289,220	350,148	391,897

The state-wise and utility-wise details are given in the Annexure-I.

.....2.

(b) : As per the Report on "The Performance of State Power Utilities" published by PFC, for the years 2012-13 to 2014-15, the following utilities selling power directly to consumers made profit on subsidy received basis in 2014-15:

State	Utility	Profit on subsidy received basis (Rs. in crore)
West Bengal	WBSEDCL	20
Delhi	BSES Rajdhani	63
	BSES Yamuna	19
	TPDDL	336
Karnataka	BESCOM	113
	CHESCOM	37
	HESCOM	30
	MESCOM	14
Puducherry	Puducherry PD	157
Gujarat	DGVCL	51
	MGVCL	29
	PGVCL	11
	UGVCL	17

(c) : As per the Power Supply Position, the following States/UTs have experienced power deficit during the period April' 2016- October' 2016:

Range of Shortages (In %)	States/ Union Territories
Energy Shortage less than or equal to All India Average shortage of 0.7%	Himachal Pradesh, Uttarakhand, Rajasthan, West Bengal, Jharkhand, Chhattisgarh, Andhra Pradesh, Goa, Kerala, Delhi and Puducherry
Energy Shortage more than the All India Average Shortage of 0.7%.	Uttar Pradesh, Karnataka, Bihar, Jammu & Kashmir, Arunachal Pradesh, Mizoram, Tripura, Nagaland, Assam, Manipur and Andaman-Nicobar Islands.

(d) & (e) : As per the data compiled by Central Electricity Authority, the State-wise and indicative consumer category-wise details of all India weighted average tariff (Rs./Unit) indicative for the period 2014-15 are given at Annexure-II.

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2549 ANSWERED IN THE LOK SABHA ON 01.12.2016.

Total Outstanding Debt for Utilities Selling Directly to Consumers

(Rs. in crores)

Region	State	Utility	2010-11	2011-12	2012-13	2013-14	2014-15
Eastern	Bihar	BSEB	15,149	17,559	0	0	0
		NBPDCL	0	0	1,281	1,654	1,776
		SBPDCL	0	0	1,682	2,174	2,040
	Bihar Total		15,149	17,559	2,963	3,827	3,816
	Jharkhand	JSEB	7,869	8,607	9,795	0	0
		JBVNL	0	0	0	125	265
	Jharkhand Total		7,869	8,607	9,795	125	265
	Sikkim	Sikkim PD	0	0	0	0	0
	Sikkim Total		0	0	0	0	0
	West Bengal	WBSEDCL	5,510	7,265	9,197	11,648	12,871
West Bengal Total		5,510	7,265	9,197	11,648	12,871	
Eastern Total			28,527	33,431	21,954	15,601	16,951
North Eastern	Arunachal Pradesh	Arunachal PD	88	88	0	0	0
		Arunachal Pradesh Total		88	88	0	0
	Assam	APDCL	573	747	1,351	1,591	2,260
	Assam Total		573	747	1,351	1,591	2,260
	Manipur	Manipur PD	87	81	79	0	0
		MSPDCL	0	0	0	0	0
	Manipur Total		87	81	79	0	0
	Meghalaya	MeECL	1,187	1,495	0	0	0
		MePDCL	0	0	324	266	388
	Meghalaya Total		1,187	1,495	324	266	388
	Mizoram	Mizoram PD	143	42	39	37	32
	Mizoram Total		143	42	39	37	32
	Nagaland	Nagaland PD	169	144	150	0	328
		Nagaland Total		169	144	150	0
	Tripura	Tripura PD	191	143	0	0	0
TSECL		0	0	204	204	237	
Tripura Total		191	143	204	204	237	
North Eastern Total			2,438	2,740	2,148	2,099	3,246
Northern	Haryana	DHBVNL	4,822	5,347	8,056	10,750	14,659
		UHBVNL	10,195	10,685	14,515	17,950	19,425
		Haryana Total		15,016	16,033	22,571	28,700
	Himachal Pradesh	HPSEB	0	0	0	0	0
		HPSEB Ltd.	4,178	4,234	4,522	4,374	4,590
	Himachal Pradesh Total		4,178	4,234	4,522	4,374	4,590
	Jammu & Kashmir	J&K PDD	122	150	147	152	166
	Jammu & Kashmir Total		122	150	147	152	166
	Punjab	PSPCL	20,517	18,957	19,795	19,771	21,903
	Punjab Total		20,517	18,957	19,795	19,771	21,903
	Rajasthan	AVVNL	15,122	18,359	22,667	24,812	27,017
		JDVVNL	13,335	16,021	20,954	23,493	25,956
		JVVNL	14,049	16,496	20,520	24,553	28,176
	Rajasthan Total		42,506	50,876	64,141	72,858	81,149
	Uttar Pradesh	DVVN	1,359	1,521	10,503	17,950	20,477
KESCO		365	355	1,979	3,160	3,151	
MVVN		1,226	1,289	6,642	10,163	10,704	
Pash VVN		1,266	1,452	6,819	9,956	9,941	
Poorv VVN		1,184	1,245	7,694	12,370	12,709	
Uttar Pradesh Total		5,400	5,863	33,637	53,599	56,982	
Uttarakhand	Ut PCL	1,202	1,712	1,344	1,201	1,388	
Uttarakhand Total		1,202	1,712	1,344	1,201	1,388	
Northern Total			88,941	97,826	146,157	180,655	200,264

Southern	Andhra Pradesh	APCPDCL	5,510	6,772	7,808	8,793	0
		APEPDCL	3,188	3,265	3,233	3,554	3,879
		APNPDCL	3,372	3,773	4,159	4,306	0
		APSPDCL	4,736	5,604	6,302	6,913	9,958
	Andhra Pradesh Total		16,807	19,414	21,502	23,567	13,837
	Karnataka	BESCOM	1,765	2,327	3,419	4,524	5,489
		CHESCOM	297	320	336	539	964
		GESCOM	578	477	455	582	726
		HESCOM	1,537	1,315	1,126	1,343	1,983
		MESCOM	381	485	453	631	677
	Karnataka Total		4,558	4,924	5,789	7,619	9,838
	Kerala	KSEB	1,384	2,471	4,077	0	0
		KSEBL	0	0	0	5,261	5,810
	Kerala Total		1,384	2,471	4,077	5,261	5,810
	Puducherry	Puducherry PD	0	0	0	0	0
	Puducherry Total		0	0	0	0	0
	Tamil Nadu	TNEB	0	0	0	0	0
		TANGEDCO	24,466	34,380	45,198	66,105	75,467
	Tamil Nadu Total		24,466	34,380	45,198	66,105	75,467
	Telangana	TSNPDCL	0	0	0	0	4,867
		TSSPDCL	0	0	0	0	7,059
	Telangana Total		0	0	0	0	11,926
	Southern Total		47,214	61,190	76,566	102,552	116,877
Western	Chhattisgarh	CSPDCL	469	616	1,052	1,502	1,907
	Chhattisgarh Total		469	616	1,052	1,502	1,907
	Goa	Goa PD	113	71	109	97	54
	Goa Total		113	71	109	97	54
	Gujarat	DGVCL	321	230	274	271	223
		MGVCL	471	354	335	275	302
		PGVCL	802	621	1,278	1,047	1,136
		UGVCL	437	299	536	431	524
	Gujarat Total		2,032	1,503	2,423	2,024	2,186
	Madhya Pradesh	MP Madhya Kshetra VVCL	4,253	5,762	7,593	9,604	11,762
		MP Paschim Kshetra VVCL	4,642	6,100	7,055	8,346	9,807
		MP Purv Kshetra VVCL	4,432	6,139	8,038	9,966	11,822
	Madhya Pradesh Total		13,327	18,000	22,685	27,916	33,391
	Maharashtra	MSEDCL	10,074	14,548	16,127	17,703	17,021
	Maharashtra Total		10,074	14,548	16,127	17,703	17,021
	Western Total		26,013	34,738	42,396	49,242	54,559
	Grand Total		193,134	229,924	289,220	350,148	391,897

ANNEXURE REFERRED TO IN REPLY TO PARTS (d) & (e) OF UNSTARRED QUESTION NO. 2549 ANSWERED IN THE LOK SABHA ON 01.12.2016.

All India Weighted Average Tariff (Rs./Unit)				
DOMESTIC 2 KW (200 Units/Month)				
Name of Utility	Tariff effective	Av. Rate	Duty/Tax	Total
	from	(P/KWh)	(P/KWh)	(P/KWh)
Andaman & Nicobar Island	01.04.2015	300	15	315
Andhra Pradesh	01.04.2014	327.5	6	334
Arunachal Pradesh	01.04.2015	400	0	400
Assam	01.12.2013	462.8	10	473
Bihar (Urban Areas)	01.04.2015	367.5	22	390
(Rural Areas)		252.5	15	268
Chandigarh	01.04.2015	284.5	9	294
Chhattisgarh	01.07.2015	310	25	335
Dadra & Nagar Haveli	01.04.2014	165	0	165
Daman & Diu	01.04.2014	165	0	165
Delhi-(BYPL/BRPL/NDPL-TPDDL)	01.10.2015	420	21	441
Delhi-(NDMC)	01.10.2015	345	17	362
Goa	01.04.2014	155	20	175
Gujarat (Urban Areas)	01.04.2015	388.75	58	447
(Rural Areas)		348.75	26	375
Gujarat-(Torrent Power Ltd., Ahmedabad)	01.04.2015	385	58	443
Gujarat-(Torrent Power Ltd., Surat)	01.04.2015	396.25	59	456
Haryana	01.04.2015	473.75	10	484
Himachal Pradesh	01.04.2015	403.75	12	416
Jammu & Kashmir	01.04.2015	182	18	200
Jharkhand (Urban Areas)	01.08.2012	260	20	280
(Rural Areas)		252.5	20	273
Karnataka	01.05.2014			
Bruhat Bangalore Mahangara Palike, Municipal Corp.& all Urban		473	28	501
Areas under Village Panchayats		436	26	462
Kerala	16.08.2014	420	40	460
Lakshadweep	01.04.2015	192.5	0	193
Madhya Pradesh (Urban Areas)	17.04.2015	566.25	59	626
(Rural Areas)		536.25	56	593
Maharashtra	01.06.2015	623.5	100	723
Maharashtra - Mumbai-(B.E.S.T)	01.06.2015	876.5	156	1033
Maharashtra - Mumbai-(Reliance Energy)	01.06.2015	604	113	717
Maharashtra - Mumbai-(TATA's)	01.06.2015	350.5	72	423
Manipur	27.02.2015	380	0	380
Mizoram	01.04.2015	352.5	0	353
Meghalaya	01.04.2013	315	5	320
Nagaland	01.04.2015	485.25	0	485
Orissa	01.04.2015	377.5	15	393
Puducherry	01.04.2014	135	0	135
Punjab	01.04.2015	533	69	602
Rajasthan	01.02.2015	602.5	55	571
Sikkim	01.04.2015	256.25	0	256
Tamil Nadu	12.12.2014	257.5	0	258
Tripura	01.04.2014	556.25	0	556
Uttarakhand	01.04.2015	290	15	305
Uttar Pradesh (URBAN)	01.04.2015	543.75	5	549
(RURAL)		270	5	275
West Bengal (URBAN)	01.04.2015	660.11	0	660
(RURAL)		637.31	0	637
West Bengal - (CESC Ltd., Kolkata)	01.04.2015	657.19	0	657
West Bengal - (DPSC Ltd.)	01.04.2013	417.11	0	417
West Bengal-Durgapur Projects Ltd.	01.04.2015	448.99	0	449
Telangana	01.04.2015	327.50	6	334

COMMERCIAL 20 KW (3000 Units/Month)				
Name of Utility	Tariff effective from	Av. Rate (P/KWh)	Duty/Tax (P/KWh)	Total (P/KWh)
Andaman & Nicobar Island	01.04.2015	777.83	38.89	817
Andhra Pradesh	01.04.2014	930.58	6.00	937
Arunachal Pradesh	01.04.2015	500.00	0.00	500
Assam	01.12.2013	688.33	10.00	698
Bihar	01.04.2015	588.00	35.28	623
Chandigarh	01.04.2015	516.33	11.00	527
Chhattisgarh	01.07.2015	676.67	81.20	758
Dadra & Nagar Haveli	01.04.2014	332.33	0.00	332
Daman & Diu	01.04.2014	361.67	0.00	362
Delhi-(BYPL/BRPL/NDPL-TPDDL)	01.10.2015	1029.63	51.48	1081
Delhi-(NDMC)	01.10.2015	1017.65	50.88	1069
Goa	01.04.2014	430.50	70.00	501
Gujarat	01.04.2015	510.00	127.50	638
Gujarat-(Torrent Power Ltd., Ahmedabad)	01.04.2015	586.67	146.67	733
Gujarat-(Torrent Power Ltd., Surat)	01.04.2015	599.81	149.95	750
Haryana	01.04.2015	675.00	10.00	685
Himachal Pradesh	01.04.2015	482.26	38.58	521
Jammu & Kashmir	01.04.2015	518.33	51.83	570
Jharkhand	01.08.2012	641.67	29.50	671
Karnataka	01.05.2014			
Bruhat Bangalore Mahangara Palike, Municipal Corp.& all Urban		800.00	48.00	848
Areas under Village Panchayats		743.33	44.60	788
Kerala	16.08.2014	1010.00	93.00	1103
Lakshadweep	01.04.2015	690.83	0.00	691
Madhya Pradesh (Urban Areas)	17.04.2015	713.33	106.29	820
(Rural Areas)		696.67	103.80	800
Maharashtra	01.06.2015	949.20	208.33	1158
Maharashtra - Mumbai-(B.E.S.T)	01.06.2015	1269.67	290.63	1560
Maharashtra - Mumbai-(Reliance Energy)	01.06.2015	815.17	195.19	1010
Maharashtra - Mumbai-(TATA's)	01.06.2015	879.17	208.63	1088
Manipur	27.02.2015	595.17	0.00	595
Mizoram	01.04.2015	560.33	0.00	560
Meghalaya	01.04.2013	535.33	6.00	541
Nagaland	01.04.2015	829.00	0.00	829
Odisha	01.04.2015	690.33	27.61	718
Puducherry	01.04.2014	532.50	0.00	533
Punjab	01.04.2015	674.27	87.65	762
Rajasthan	01.02.2015	838.33	65.00	770
Sikkim	01.04.2015	558.65	0.00	559
Tamil Nadu	12.12.2014	802.25	40.11	842
Tripura	01.04.2014	768.33	0.00	768
Uttarakhand	01.04.2015	515.00	15.00	530
Uttar Pradesh (URBAN)	01.04.2015	866.00	5.00	871
(RURAL)		343.33	5.00	348
West Bengal (URBAN)	01.04.2015	870.26	130.54	1001
(RURAL)		870.20	130.53	1001
West Bengal - (CESC Ltd., Kolkata)	01.04.2015	891.75	133.76	1026
West Bengal - (DPSC Ltd.)	01.04.2013	444.89	66.73	512
West Bengal-Durgapur Projects Ltd.	01.04.2015	517.03	77.55	595
Telangana	01.04.2015	985.00	6.00	991

AGRICULTURE 3 HP (600 Units/Month)				
Name of Utility	Tariff effective from	Av. Rate (P/KWh)	Duty/Tax (P/KWh)	Total (P/KWh)
Andaman & Nicobar Island	01.04.2015	140.00	7.0	147
Andhra Pradesh	01.04.2014			
With Demand side Management measures (DSM)				
Dry land Farmers (connection <=3 Nos.)		5.00	0.0	5
Wet land Farmers (Holding <=2.5 Acres)		5.00	0.0	5
Dry land Farmers (connection >3 Nos.)		76.88	0.0	77
Wet land Farmers (Holding >2.5 Acres)		76.88	0.0	77
Corporate Farmers & IT Assesse		255.00	0.0	255
Without Demand side Management measures (DSM)				
Dry land Farmers (connection <=3 Nos.)		76.88	0.0	77
Wet land Farmers (Holding <=2.5 Acres)		76.88	0.0	77
Dry land Farmers (connection >3 Nos.)		148.75	0.0	149
Wet land Farmers (Holding >2.5 Acres)		148.75	0.0	149
Corporate Farmers & IT Assesse		355.00	0.0	355
Arunachal Pradesh	01.04.2015	310.00	0.0	310
Assam	01.12.2013	386.19	10.0	396
Bihar (Urban Areas)	01.04.2015	170.00	4.0	174
(Rural Areas)		110.00	4.0	114
Chandigarh	01.04.2015	230.00	0.0	230
Chhattisgarh	01.07.2015	350.00	0.0	350
Dadra & Nagar Haveli	01.04.2014	70.00	0.0	70
Daman & Diu	01.04.2014	70.00	0.0	70
Delhi-(BYPL/BRPL/NDPL-TPDDL)	01.10.2015	282.46	14.1	297
Goa	01.04.2014	120.00	20.0	140
Gujarat	01.04.2015	202.50	0.0	203
Gujarat-(Torrent Power Ltd., Ahmedabad)	01.04.2015	330.00	0.0	330
Gujarat-(Torrent Power Ltd., Surat)	01.04.2015	70.00	0.0	70
Haryana	01.04.2015	10.00	0.0	10
Himachal Pradesh	01.04.2015	358.33	35.8	394
Jammu & Kashmir	01.04.2015	67.50	6.8	74
Jharkhand	01.08.2012	60.00	2.0	62
Karnataka	01.05.2014	0.00	0.0	0
Kerala	16.08.2014	202.98	20.0	223
Madhya Pradesh	17.04.2015	387.50	0.0	388
Maharashtra	01.06.2015	268.00	0.0	268
Maharashtra - Mumbai-(Reliance Energy)	01.06.2015	327.50	0.0	328
Manipur	27.02.2015	327.38	0.0	327
Mizoram	01.04.2015	186.19	0.0	186
Meghalaya	01.04.2013	179.92	6.0	186
Nagaland	01.04.2015	290.00	0.0	290
Odisha	01.04.2015	150.00	3.0	153
Punjab	01.04.2015	458.00	59.5	518
Rajasthan	01.02.2015	457.50	4.0	405
Sikkim	01.04.2015	265.83	0.0	266
Tamil Nadu	12.12.2014	0.00	0.0	0
Tripura	01.04.2014	366.19	0.0	366
Uttarakhand	01.04.2015	140.00	15.0	155
Uttar Pradesh (URBAN)	01.04.2015	557.50	7.5	565
(RURAL)		115.00	7.5	123
West Bengal	01.04.2015	467.29	0.0	467
West Bengal - (DPSC Ltd.)	01.04.2013			
(06.00 hrs to 17.00 hrs)		278.95	0.0	279
(17.00 hrs to 23.00 hrs)		658.95	0.0	659
(23.00 hrs to 06.00 hrs)		187.95	0.0	188
West Bengal-Durgapur Projects Ltd.	01.04.2015			
(06.00 hrs to 17.00 hrs)		318.29	0.0	318
(17.00 hrs to 23.00 hrs)		628.29	0.0	628
(23.00 hrs to 06.00 hrs)		179.29	0.0	179
Telangana	01.04.2015			
With Demand side Management measures (DSM)				
Dry land Farmers (connection <=3 Nos.)		5.00	0.0	5
Wet land Farmers (Holding <=2.5 Acres)		5.00	0.0	5
Dry land Farmers (connection >3 Nos.)		76.88	0.0	77
Wet land Farmers (Holding >2.5 Acres)		76.88	0.0	77
Corporate Farmers & IT Assesse		255.00	0.0	255
Without Demand side Management measures (DSM)				
Dry land Farmers (connection <=3 Nos.)		76.88	0.0	77
Wet land Farmers (Holding <=2.5 Acres)		76.88	0.0	77
Dry land Farmers (connection >3 Nos.)		148.75	0.0	149
Wet land Farmers (Holding >2.5 Acres)		148.75	0.0	149
Corporate Farmers & IT Assesse		355.00	0.0	355

MEDIUM INDUSTRIES 50 KW (7500 Units/Month)				
Name of Utility	Tariff effective from	Av. Rate (P/KWh)	Duty/Tax (P/KWh)	Total (P/KWh)
Andaman & Nicobar Island	01.04.2015	546.00	27	573
Andhra Pradesh	01.04.2014	643.75	6	650
Arunachal Pradesh	01.04.2015	420.00	0	420
Assam	01.12.2013	593.43	9	602
Bihar	01.04.2015	683.30	41	724
Chandigarh	01.04.2015	500.00	11	511
Chhattisgarh	01.07.2015	535.11	21	557
Dadra & Nagar Haveli	01.04.2014	367.34	0	367
Daman & Diu	01.04.2014	372.34	0	372
Delhi-(BYPL/BRPL/NDPL-TPDDL)	01.10.2015	944.44	47	992
Delhi-(NDMC)	01.10.2015	850.98	43	894
Goa	01.04.2014	320.00	70	390
Gujarat	01.04.2015	535.33	54	589
Gujarat-(Torrent Power Ltd., Ahmedabad)	01.04.2015	586.67	59	645
Gujarat-(Torrent Power Ltd., Surat)	01.04.2015	599.81	60	660
Haryana	01.04.2015	713.33	10	723
Himachal Pradesh	01.04.2015	574.07	63	637
Jammu & Kashmir	01.04.2015	331.33	33	364
Jharkhand	01.08.2012	606.18	5	611
Karnataka	01.05.2014			
Bruhat Bangalore Mahangara Palike, Municipal Corp.& all Urban		675.97	41	717
Areas under Village Panchayats		645.03	39	684
Kerala	16.08.2014	603.33	52	655
Lakshadweep	01.04.2015	517.22	0	517
Madhya Pradesh (Urban Areas)	17.04.2015	743.33	67	810
(Rural Areas)		743.33	67	810
Maharashtra	01.06.2015	799.11	83	882
Maharashtra - Mumbai-(B.E.S.T)	01.06.2015	1213.15	137	1350
Maharashtra - Mumbai-(Reliance Energy)	01.06.2015	1038.96	121	1160
Maharashtra - Mumbai-(TATA's)	01.06.2015	1016.96	119	1136
Manipur	27.02.2015	474.07	0	474
Mizoram	01.04.2015	467.06	0	467
Meghalaya	01.04.2013	466.67	5	472
Nagaland	01.04.2015	600.67	0	601
Odisha	01.04.2015	560.00	34	594
Puducherry	01.04.2014	448.13	0	448
Punjab	01.04.2015	587.00	76	663
Rajasthan	01.02.2015	687.56	65	644
Sikkim (AT 11 KV)	01.04.2015	437.25	0	437
Tamil Nadu	12.12.2014	635.47	32	667
Tripura	01.04.2014	764.00	0	764
Uttarakhand	01.04.2015	376.00	20	396
Uttar Pradesh (URBAN)	01.04.2015	860.00	5	865
(RURAL)		795.50	5	801
West Bengal (URBAN)	01.04.2015	770.89	96	867
(RURAL)		752.56	94	847
West Bengal - (CESC Ltd., Kolkata)	01.04.2015	771.85	96	868
West Bengal - (DPSC Ltd.)	01.04.2013	494.30	62	556
West Bengal-Durgapur Projects Ltd.	01.04.2015	508.49	64	572
Telangana	01.04.2015	677.86	6	684

LARGE INDUSTRIES 10000 KW 40% LF (2920000 Unit/Month) (AT 11 KV)				
Name of Utility	Tariff effective from	Av. Rate (P/KWh)	Duty/Tax (P/KWh)	Total (P/KWh)
Andhra Pradesh	01.04.2014	729.37	6	735
Arunachal Pradesh	01.04.2015	375.00	0	375
Assam	01.12.2013	586.78	7	594
Chandigarh	01.04.2015	582.43	11	593
Chhattisgarh	01.07.2015	555.62	111	667
Dadra & Nagar Haveli	01.04.2014	459.95	0	460
Daman & Diu	01.04.2014	509.95	0	510
Delhi-(BYPL/BRPL/NDPL-TPDDL)	01.10.2015	869.79	43	913
Delhi-(NDMC)	01.10.2015	891.54	45	936
Goa	01.04.2014	406.10	70	476
Gujarat	01.04.2015	618.50	93	711
Gujarat-(Torrent Power Ltd., Ahmedabad)	01.04.2015	559.73	71	543
Gujarat-(Torrent Power Ltd., Surat)	01.04.2015	588.45	88	677
Haryana	01.04.2015	591.24	10	601
Himachal Pradesh	01.04.2015	599.85	66	666
Jammu & Kashmir	01.04.2015	367.67	37	404
Jharkhand	01.08.2012	490.19	5	495
Karnataka	01.05.2014			
Bruhat Bangalore Mahangara Palike, Municipal Corp.& all Urban		682.12	41	723
Areas under Village Panchayats		663.66	40	703
Kerala	16.08.2014	634.16	10	644
Lakshadweep	01.04.2015	698.05	0	698
Madhya Pradesh	17.04.2015	681.54	102	784
Maharashtra (Continious Industries)	01.06.2015	804.71	84	889
(Non-continious Industries)		754.71	79	834
Maharashtra - Mumbai-(B.E.S.T)	01.06.2015	1035.10	120	1155
Maharashtra - Mumbai-(Reliance Energy)	01.06.2015	1008.71	118	1127
Maharashtra - Mumbai-(TATA's)	01.06.2015	1012.71	118	1131
Manipur	27.02.2015	503.05	0	503
Mizoram	01.04.2015	434.17	0	434
Meghalaya	01.04.2013	501.56	3	505
Nagaland	01.04.2015	659.85	0	660
Odisha	01.04.2015	598.07	40	638
Punjab	01.04.2015	614.00	80	694
Sikkim	01.04.2015	601.38	0	601
Tamil Nadu	12.12.2014	778.18	39	817
Uttarakhand	01.04.2015	516.84	25	542
Uttar Pradesh (URBAN)	01.04.2015	883.08	5	888
(RURAL)		816.85	5	822
West Bengal	01.04.2015	807.77	121	929
West Bengal - (CESC Ltd., Kolkata)	01.04.2015	774.77	116	891
West Bengal - (DPSC Ltd.)	01.04.2013	620.35	93	713
West Bengal-Durgapur Projects Ltd.	01.04.2015	554.77	83	638
Telangana	01.04.2015	765.00	6	771

RAILWAY TRACTION 12500 KW (2500000 Unit/Month)				
Name of Utility	Tariff effective	Av. Rate	Duty/Tax	Total
	from	(P/KWh)	(P/KWh)	(P/KWh)
Andhra Pradesh	01.04.2014	669.52	0.0	670
Bihar (AT 25 KV)	01.04.2015	703.33	42.2	746
(AT 132KV)		703.33	42.2	746
Chhattisgarh (AT 132 KV)	01.07.2015	666.67	0.0	667
Delhi-(BYPL/BRPL/NDPL-TPDDL)	01.10.2015	841.22	0.0	841
Delhi-(NDMC) (AT 33 KV)	01.10.2015	868.24	43.4	912
Gujarat (AT 132 KV)	01.04.2015	600.00	0.0	600
Haryana	01.04.2015			
AT 11 KV		612.62	0.0	613
AT 33 KV		604.12	0.0	604
AT 66/132 KV		595.62	0.0	596
AT 220 KV		587.12	0.0	587
Jharkhand (AT 25 KV)	01.08.2012	669.41	15.0	684
Karnataka	01.05.2014	640.00	38.4	678
Kerala (AT 110 KV)	16.08.2014	618.89	0.0	619
Madhya Pradesh (AT 132/220 KV)	17.04.2015	695.56	0.0	696
Maharashtra	01.06.2015	846.00	0.0	846
Maharashtra - Mumbai-(TATA's)	01.06.2015			
(AT 22/33 KV)		977.22	0.0	977
(AT 100 KV)		965.22	0.0	965
Odisha (AT 25/33KV)	01.04.2015	640.88	0.0	641
(AT 132KV)		640.90	0.0	641
Punjab (AT 132KV)	01.04.2015	655.00	85.2	740
Rajasthan	01.02.2015	744.44	0.0	628
Tamil Nadu	12.12.2014	801.67	0.0	802
Uttarakhand	01.04.2015	541.18	0.0	541
Uttar Pradesh (132 KV AND ABOVE)	01.04.2015	911.76	0.0	912
(BELOW 132 KV)		947.06	0.0	947
West Bengal (AT 25 KV)	01.04.2015	866.78	0.0	867
(AT 132 KV)		844.78	0.0	845
West Bengal - (CESC Ltd., Kolkata)	01.04.2015	736.89	0.0	737
West Bengal - (DPSC Ltd.)	01.04.2013	708.11	0.0	708
West Bengal-D.V.C. (AT 132 KV)	01.09.2014	481.18	0.0	481
West Bengal-Durgapur Projects Ltd.	01.04.2015			
(AT 25 KV)		647.78	0.0	648
(AT 132 KV)		642.78	0.0	643
Telangana	01.04.2015	669.52	0.0	670

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2552
ANSWERED ON 01.12.2016

LED DISTRIBUTION SCHEME

2552. SHRI V. PANNEERSELVAM:
DR. RATNA DE (NAG):

Will the Minister of POWER
be pleased to state:

- (a) whether the Government proposes to revamp the funding and execution pattern of "LED Distribution Scheme";
- (b) if so, the details thereof;
- (c) if not, the reasons therefor;
- (d) whether this initiative will help to ensure the better conservation of power in backward, rural, semi-urban and remote areas; and
- (e) if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) to (c) : There is no proposal to revamp the funding and execution pattern of "LED distribution scheme". Hon'ble Prime Minister of India launched the National LED programme on 5th January, 2015, which is being implemented by Energy Efficiency Services Limited (EESL), a joint venture company of Public Sector Undertakings (PSUs) under Ministry of Power. Unnat Jyoti By Affordable LEDs For All (UJALA) programme is voluntary in nature and is based on a sustainable business model, where the cost of efficient lighting is repaid by consumer from savings in energy and maintenance expenditure over a period of time through savings in its electricity bill. The entire upfront investment is made by EESL that aggregates demand across the country and procures LED bulbs through a transparent and competitive bidding process for further distribution to domestic consumers at lower rates compared to retail market. The aggregation of demand and bulk procurement has resulted in reduction of approximately 88% in procurement prices of LED bulbs from Rs.310/- (February, 2014) to Rs.38/- (August 2016) (the retail price reduced from Rs.550/- to Rs.65/-) which is passed on to the consumers.

(d) & (e): UJALA Scheme covers Urban as well as backward, rural, semi-urban and remote areas. EESL has initiated nationwide implementation of the programme to replace 77 crore incandescent bulbs with LED bulbs by March, 2019. This will result in an estimated avoided capacity generation of 20,000 MW and save 100 billion KWh per year. As on 21.11.2016, 17.90 Crore LED bulbs have been distributed across the country, that resulted in avoided capacity generation of 4,656 MW and a saving of 23.25 billion KWh per year.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2557
ANSWERED ON 01.12.2016

NEW POWER PLANTS

2557. SHRI ASHWINI KUMAR:
SHRI SADASHIV LOKHANDE:

Will the Minister of POWER
be pleased to state:

- (a) the details of power projects sanctioned, set up, being set up and pending for various States during the previous and the current five year plan along with the cost of each project, State-wise;
- (b) whether more power plants are proposed to be set up in various States in the near future particularly in Haryana; and
- (c) if so, the details thereof and the time frame for the same, 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 (c) : As per Section 7 of the Electricity Act 2003, any generating company may establish, operate and maintain a generating station without obtaining a license/permission under this Act, if it complies with the technical standards relating to connectivity with the grid. Accordingly, sanction of the Government is not required for setting up of thermal power projects. However, for setting up of Hydroelectric Power Projects, the Detailed Project Reports (DPRs) are required to be submitted for concurrence of Central Electricity Authority (CEA). The details of power projects sanctioned, set up, being set up and pending during the 11th Plan & 12th Plan period in various States including Haryana are given below.

- i. The list of Hydro Projects set up during the 11th and 12th Plan periods is given at Annex-I.
- ii. The list of thermal (Central & State sector) and hydro power projects being set up in various states is given at Annex-II and Annex-III respectively.
- iii. The list of hydro electric project with CEA for concurrence/appraisal is given at Annex-IV.

ANNEX REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO.2557 ANSWERED IN THE LOK SABHA ON 01.12.2016.

List of Hydro Electric Projects Concurred by CEA during 11th Plan & 12th Plan
(As on 31.10.2016)

S. No.	Name of Scheme	State	Developer	Installed Capacity (MW)
DURING 11 TH PLAN				
1	Lower Jurala	Telangana	APGENCO	240
2	Rangit -IV	Sikkim	JPCL	120
3	Pare	Arunachal Pradesh	NEEPCO	110
4	Dibang	Arunachal Pradesh	NHPC	3000
5	Gundia	Karnataka	KPCL	200
6	Singoli Bhatwari	Uttarakhand	L&T	99
7	Alaknanda	Uttarakhand	GMR	300
8	Rupsiyabagar Khasiyabara	Uttarakhand	NTPC	261
9	Demwe Lower	Arunachal Pradesh	ADPL	1750
10	Dibbin	Arunachal Pradesh	KSKDHL	120
11	Lower Siang	Arunachal Pradesh	JAPL	2700
12	Teesta - IV	Sikkim	NHPC	520
13	Kutehr	Himachal Pradesh	SWEPL	240
14	Baglihar - II	Jammu & Kashmir	JKSPDC	450
15	Sainj	Himachal Pradesh	HPPCL	100
16	Panan	Sikkim	HHPL	300
17	Nafra	Arunachal Pradesh	SNEL	120
18	Nyamjang Chhu	Arunachal Pradesh	BEL	780
19	Kolodyne St-II	Mizoram	NTPC	460
20	Tawang St-I	Arunachal Pradesh	NHPC	600
21	Tawang St-II	Arunachal Pradesh	NHPC	800
22	Vyasi	Uttarakhand	UJVNL	120
23	Indirasagar (Polavaram)	Andhra Pradesh	APGENCO	960
24	Bajoli Holi	Himachal Pradesh	GMR	180
DURING 12 TH PLAN				
25	Tato-II	Arunachal Pradesh	THPPL	700
26	Devsari/SJVNL	Uttarakhand	SJVNL	252
27	Shongtong Karcham/HPPCL	Himachal Pradesh	HPPCL	450
28	Rattle/GVKRHEPPL	Jammu & Kashmir	GVKR HEPPL	850
29	Gongri	Arunachal Pradesh	DEPL	144
30	Miyar	Himachal Pradesh	MHPCL	120
31	Hirong	Arunachal Pradesh	JAPL	500
32	Etalin	Arunachal Pradesh	EHEPCL	3097
33	Talong Londa	Arunachal Pradesh	GMR	225
34	Naying	Arunachal Pradesh	NDSCPL	1000
35	Siyom	Arunachal Pradesh	SHPPL	1000
36	Chango Yangthang	Himachal Pradesh	MPCL	180
37	Dikhu	Nagaland	NMPPL	186
38	New Ganderwal	Jammu & Kashmir	JKSPDC	93
39	Chhatru	Himachal Pradesh	DSC	126
40	Kalai-II	Arunachal Pradesh	Kalai PPL	1200
41	Kynshi - I	Meghalaya	AKPPL	270
42	Heo	Arunachal Pradesh	HHPPL	240
43	Tato-I	Arunachal Pradesh	SHPPL	186
44	Lower Kopili	Assam	AGPCL	120
45	Kiru	Jammu & Kashmir	CVPPL	624
46	Turga PSS	WB	WBSEDCL	1000
47	Seli	Himachal Pradesh	SHPCL	400
48	Sach Khas	Himachal Pradesh	L&T HHPL	267
49	Tagurshit	Arunachal Pradesh	L&T	74

ANNEX REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO.2557 ANSWERED IN THE LOK SABHA ON 01.12.2016.

List of Thermal Power Projects being set up in various States in Central and State sector

Sl. No.	State	Project Name	Unit No	Capacity (MW)
<i>CENTRAL SECTOR</i>				
1	<i>Assam</i>	Bongaigaon TPP	U-2	250
			U-3	250
2	<i>Bihar</i>	Barh STPP-I	U-1	660
			U-2	660
			U-3	660
3	<i>Bihar</i>	Muzaffarpur TPP(Kanti) Exp	U-4	195
4	<i>Bihar</i>	Nabi Nagar TPP	U-2	250
			U-3	250
			U-4	250
5	<i>Bihar</i>	New Nabi Nagar TPP	U-1	660
			U-2	660
			U-3	660
6	<i>Chhatisgarh</i>	Lara TPP	U-1	800
			U-2	800
7	<i>Jharkhand</i>	North Karanpura TPP	U-1	660
			U-2	660
			U-3	660
8	<i>Karnataka</i>	Kudgi STPP Ph-I	U-1	800
			U-2	800
			U-3	800
9	<i>Maharashtra</i>	Mouda STPP Ph-II	U-4	660
10	<i>Maharashtra</i>	Solapur STPP	U-1	660
			U-2	660
11	<i>MP</i>	Gadarwara TPP	U-1	800
			U-2	800
12	<i>MP</i>	Khargone TPP	U-1	660
			U-2	660
13	<i>Odisha</i>	Darlipalli STPP	U-1	800
			U-2	800
14	Telangana	Telangana Ph- I	U-1	800
			U-2	800
15	<i>TN</i>	Neyveli New TPP	U-1	500
			U-2	500
16	<i>UP</i>	Unchahar - IV	U-6	500
17	<i>UP</i>	Meja STPP	U-1	660
			U-2	660
18	<i>UP</i>	Ghatampur TPP	U-1	660
			U-2	660
			U-3	660
19	<i>UP</i>	Tanda TPP	U-1	660
			U-2	660
<i>STATE SECTOR</i>				
1	<i>A.P</i>	Dr.Narla Tata Rao TPS St-V	U-1	800
2	<i>A.P</i>	Sri Damodaran Sanjeevaiah TPP St-II	U-1	800
3	<i>AP</i>	Rayalaseema TPP St-IV	U-6	600
4	<i>Assam</i>	Namrup CCGT	GT	62.25
			ST	36.15
5	<i>Bihar</i>	Barauni TPS Extn.	U-8	250
			U-9	250
6	<i>Gujarat</i>	Bhavnagar CFBC TPP	U-2	250

7	<i>Gujarat</i>	Wanakbori TPS Extn.	U-8	800
8	<i>Karnataka</i>	Yermarus TPP	U-2	800
9	<i>Karnataka</i>	Yelahanka CCPP	U-1	370
10	<i>Maharashtra</i>	Koradi TPS Expn.	U-10	660
11	<i>MP</i>	Shri Singhaji TPP St-II	U-3	660
			U-4	660
12	<i>Odisha</i>	Ib valley TPP	U-3	660
			U-4	660
13	<i>Rajasthan</i>	Chhabra TPP Extn.	U-5	660
			U-6	660
14	<i>Rajasthan</i>	Suratgarh SCTPP	U-7	660
			U-8	660
15	<i>Telangana</i>	Kothagudem TPS St-VII	U-1	800
16	<i>Telangana</i>	Bhadradri TPP	U-1	270
			U-2	270
			U-3	270
			U-4	270
17	<i>Telangana</i>	Singareni TPP	U-2	600
18	<i>TN</i>	Ennore exp. SCTPP (Lanco)	U-1	660
19	<i>TN</i>	Ennore SCTPP	U-1	660
			U-2	660
20	<i>TN</i>	North Chennai TPP St-III	U-1	800
21	<i>TN</i>	Uppur Super Critical TPP	U-1	800
			U-2	800
22	<i>UP</i>	Harduaganj TPS Exp-II	U-1	660
23	<i>WB</i>	Sagardighi TPP St-II	U-4	500
UMPP				
1	AP	Krishnapattnam UMPP	U-1	660
			U-2	660
			U-3	660
			U-4	660
			U-5	660
			U-6	660
2	Jharkhand	Tilaiya UMPP	U-1	660
			U-2	660
			U-3	660
			U-4	660
			U-5	660
			U-6	660

ANNEX REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO. 2557 ANSWERED IN THE LOK SABHA ON 01.12.2016.

List of Hydro Electric Projects under implementation in various State
(above 25 MW)
(As on 31.10.2016)

Sl. No.	Name of Scheme (Executing Agency)	Sector	Units	Capacity (MW)
Andhra Pradesh				
1	Polavaram (PPA)	State	12x80	960.00
2	Nagarajana Sagar TR(APGENCO)	State	2x25	50.00
Arunachal Pradesh				
3	Kameng (NEEPCO)	Central	4x150	600.00
4	Pare (NEEPCO)	Central	2x55	110.00
5	Subansiri Lower (NHPC)	Central	8x250	2000.00
6	Gongri(Dirang Energy)	Private	2x72	144.00
Himachal Pradesh				
7	Parbati St. II (NHPC)	Central	4x200	800.00
8	Uhl-III (BVPCL)	State	3x33.33	100.00
9	Sawra Kuddu (HPPCL)	State	3x37	111.00
10	Sainj (HPPCL)	State	2x50	100.00
11	Shongtong Karcham (HPPCL)	State	3x150	450.00
12	Kashang -II & III (HPPCL)	State	2x65	65.00
13	Bajoli Holi (GMR)	Private	3x60	180.00
14	Sorang (HSPCL)	Private	2x50	100.00
15	Tangnu Romai (TRPG)	Private	2x22	44.00
16	Tidong-I (NSL Tidong)	Private	100.00	100.00
17	Chanju-I (IA Energy)	Private	3x12	36.00
Jammu & Kashmir				
18	Kishanganga (NHPC)	Central	3x110	330.00
19	Ratle (RHEPPL)	Private	4x205 + 1x30	850.00
Kerala				
20	Pallivasal (KSEB)	State	2x30	60.00
21	Thottiyar (KSEB)	State	1x30+1x10	40.00
Madhya Pradesh				
22	Maheshwar (SMHPCL)	Private	10x40	400.00
Maharashtra				
23	Koyna Left Bank (WRD,MAH)	State	2x40	80.00
Meghalaya				
24	New Umtru (MePGCL)	State	2x20	40.00
Mizoram				
25	Tuirial (NEEPCO)	Central	2x30	60.00
Punjab				
26	Shahpurkandi (PSPCL)	State	3x33+3x33+1x8	206.00
Sikkim				
27	Bhasmey (Gati Infrastructure)	Private	3x17	51.00
28	Dikchu (Sneha Knietic)	Private	2x48	96.00
29	Rangit-IV (JAL Power)	Private	3x40	120.00
30	Rangit-II (Sikkim Hydro)	Private	2x33	66.00
31	Rongnichu (Madhya Bharat)	Private	2x48	96.00
32	Tashiding (Shiga Energy)	Private	2x48.5	97.00
33	Teesta St. III (Teesta Urja Ltd.)	State	6x200	1200.00
34	Teesta St. VI (LANCO)	Private	4x125	500.00
35	Panan (Himagiri)	Private	4x75	300.00
Telangana				
36	Pulichintala (TSGENCO)	State	4x30	90.00
Uttarakhand				
37	Lata Tapovan (NTPC)	Central	3x57	171.00
38	Tapovan Vishnugad (NTPC)	Central	4x130	520.00
39	Tehri PSS (THDC)	Central	4x250	1000.00
40	Vishnugad Pipalkoti (THDC)	Central	4x111	444.00
41	Vyasi (UJVNL)	State	2x60	120.00
42	Phata Byung (LANCO)	Private	2x38	76.00
43	Singoli Bhatwari (L&T)	Private	3x33	99.00
West Bengal				
44	Rammam-III (NTPC)	Central	3x40	120.00

ANNEX REFERRED TO IN REPLY TO PARTS (a) TO (c) OF UNSTARRED QUESTION NO.2557 ANSWERED IN THE LOK SABHA ON 01.12.2016.

DETAILS OF HYDRO ELECTRIC PROJECTS WITH CEA FOR CONCURRENCE / APPRAISAL
(AS ON 31.10.2016)

S. No.	Scheme	State	Sector	Installed Capacity (MW)
1	Jelam Tamak	Uttarakhand	Central	108
2	Bowala Nand Paryag	Uttarakhand	State	300
3	Dagamara	Bihar	State	130
4	Umngot	Meghalaya	State	210
5	Subansiri Middle (Kamla)	Arunachal Pradesh	Private	1800
6	Attunli	Arunachal Pradesh	Private	680
7	Loktak D/S	Manipur	Central	66
8	Magochu	Arunachal Pradesh	Private	96
9	Kirthai-II	Jammu & Kashmir	State	930
10	Dugar	Himachal Pradesh	Private	449
11	Kwar	Jammu & Kashmir	Joint-Venture (Central & State)	540
12	Sawalkote	Jammu & Kashmir	State	1856

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2575
ANSWERED ON 01.12.2016

POLLUTION CONTROLLING EQUIPMENTS

2575. SHRI B. SRIRAMULU:

Will the Minister of POWER
be pleased to state:

- (a) the details of power plants operational in Karnataka at present;
- (b) whether these plants have installed water and air pollution controlling equipments, if so, the details thereof;
- (c) whether any of the directives have been issued by the Union Government for installing these equipments in the power plants, if so, the details thereof; and
- (d) if not, the action proposed to be taken by the Union Government in this regard?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : Details of power plants that are operational in Karnataka is given in the Annexure.

(b) : As per prevailing norms, all the thermal plants that are operational in Karnataka have installed Electro Static Precipitators (ESP) for control of Suspended Particulate Matter (SPM) and Effluent Treatment Plant (ETP) for control of pollution from effluent discharge.

(c) & (d) : New Pollution Norms for Thermal Power Plants (TPPs) were notified by Ministry of Environment, Forests and Climate Change on 07.12.2015. Central Electricity Authority (CEA) has convened 3 meetings in Feb/March, 2016 with stakeholders i.e. Central / State / Private Power Utilities to sensitize them to prepare implementation plan for installation of requisite Air Pollution Control Equipments in their existing coal based thermal plants to meet new Emission Norms.

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2575 ANSWERED IN THE LOK SABHA ON 01.12.2016.

Details of power plants operational in Karnataka as on 31.10.2016

Category	Sector	Fuel	Name of Utility	Name of the station	Monitored Capacity as on 31.10.16 MW
Thermal	STATE	COAL	KPCL	BELLARY TPS	1700
Thermal	STATE	COAL	KPCL	RAICHUR TPS	1720
Thermal	STATE	COAL	KPCL	YERMARUS TPP	800
Thermal	STATE	DIESEL	KPCL	YELHANKA (DG)	127.92
Thermal	PVT	DIESEL	BELLARY	BELLARY DG	25.2
Thermal	PVT	COAL	JSWEL	TORANGALLU TPS(SBU-I)	260
Thermal	PVT	COAL	JSWEL	TORANGALLU TPS(SBU-II)	600
Thermal	PVT	DIESEL	TATA PCL	BELGAUM DG	81.3
Thermal	PVT	COAL	UPCL	UDUPI TPP	1200
Nuclear	CENTRAL	NUCLEAR	NPCL	KAIGA	880
Hydro	STATE	HYDRO	KPCL	ALMATTI DPH HPS	290
Hydro	STATE	HYDRO	KPCL	BHADRA HPS	39.2
Hydro	STATE	HYDRO	KPCL	GERUSUPPA HPS	240
Hydro	STATE	HYDRO	KPCL	GHAT PRABHA HPS	32
Hydro	STATE	HYDRO	KPCL	HAMPI HPS	36
Hydro	STATE	HYDRO	KPCL	JOG HPS	139.2
Hydro	STATE	HYDRO	KPCL	KADRA HPS	150
Hydro	STATE	HYDRO	KPCL	KALINADI HPS	855
Hydro	STATE	HYDRO	KPCL	KALINADI SUPA HPS	100
Hydro	STATE	HYDRO	KPCL	KODASALI HPS	120
Hydro	STATE	HYDRO	KPCL	LIGANAMAKKI HPS	55
Hydro	STATE	HYDRO	KPCL	MUNIRABAD HPS	28
Hydro	STATE	HYDRO	KPCL	SHARAVATHI HPS	1035
Hydro	STATE	HYDRO	KPCL	SIVASAMUNDRUM HPS	42
Hydro	STATE	HYDRO	KPCL	T B DAM HPS	36
Hydro	STATE	HYDRO	KPCL	VARAHI HPS	460
				TOTAL	11051.82

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

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2594
ANSWERED ON 01.12.2016

ZERO BASE BUDGETING IN BBMB

2594. SHRI GAJENDRA SINGH SHEKHAWAT:

Will the Minister of POWER
be pleased to state:

- (a) whether the Government of India proposes to direct Bhakra Beas Management Board (BBMB) to implement zero-based budgeting as discussed in the 205th meeting of BBMB, to reduce the ever-increasing budget demand of BBMB, at the earliest;
- (b) if so, the details thereof; and
- (c) 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 (c) : No, Madam. Government of India doesn't provide any Budgetary support to BBMB. The Budget of BBMB is placed in the Budget sub-committee of the BBMB for consideration. The budget recommended by the budget sub-committee is placed before the full Board of BBMB for approval.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2605
ANSWERED ON 01.12.2016

BOND ISSUED BY EESL

†2605. DR. RAVINDRA KUMAR RAY:

Will the Minister of POWER
be pleased to state:

- (a) whether Energy Efficiency Services Limited has issued any bonds in the domestic market for energy efficient projects in the country; and
- (b) if so, the details thereof and the investment received thereunder 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) & (b) : Energy Efficiency Services Limited, a joint venture company of Public Sector Undertakings (PSUs) under Ministry of Power has issued Secured, Redeemable, Taxable, Non-Cumulative, Non-Convertible Bonds in the nature of Debentures in dematerialized form of Rs. 500 Crores in the month of September, 2016 for the purpose of financing the various energy efficiency projects.

The Bond issue of Rs. 500 Crores was fully subscribed and the details are as follows:

Face value of Bond	Rs. 40,00,000/- per Bond [Comprising of total 3 Separately Transferable Redeemable Principal Parts (STRPP) 2 STRPP of the value of Rs. 10,00,000/- each and 1 STRPP of the value of Rs. 20,00,000]
Quantity	1250
Rate of Interest	8.07% p.a.
Actual Date of allotment	20/09/2016
Date of Redemption	a) STRPP A of Rs. 125 Crores: 20/3/2020 b) STRPP B of Rs. 125 Crores: 20/09/2021 c) STRPP C of Rs. 250 Crores: 20/09/2023
Put/Call option	N.A.
Listing	Bonds are listed with Bombay Stock Exchange

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2607
ANSWERED ON 01.12.2016

COMMITTEES TO MONITOR REGULATORS

†2607. SHRI HARINARAYAN RAJBHAR:

Will the Minister of POWER
be pleased to state:

- (a) whether the Government has set up committees at Central and State level to monitor the functioning of regulators from time to time in power sector across the country particularly in Uttar Pradesh;
- (b) if so, the details thereof during the last three years, State-wise; and
- (c) the achievements made through such monitoring, State/UT-wise?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) to (c) : There is no specific provision in the Electricity Act, 2003 for setting up of Committees for monitoring the functioning of the Electricity Regulatory Commissions at Central and State level. However, the Electricity Act, 2003 provides for accountability of the Electricity Regulatory Commissions to the Parliament in respect of Central Electricity Regulatory Commission (CERC) and the State Legislature in respect of State Electricity Regulatory Commission (SERC). The Electricity Regulatory Commissions are required to lay before the Parliament/State Legislature its Annual Report, Annual Accounts duly audited by CAG, the regulations framed under the Act etc. The Parliamentary Committees monitor the performance of the CERC/State Regulators at regular intervals on specific as well as general issues.

Further, Section 121 of the Electricity Act, 2003 provides that the Appellate Tribunal for Electricity may, after hearing the Appropriate Commission or other interested party, if any, from time to time, issue such orders, instructions or directions as it may deem fit, to any Appropriate Commission for the performance of its statutory functions under this Act.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2612
ANSWERED ON 01.12.2016

HYDRO-POWER PROJECTS ON GANGA

†2612. SHRI RAJU SHETTY:

Will the Minister of POWER
be pleased to state:

- (a) the number of hydro-power projects under-construction on the Ganga and its tributaries at present;
- (b) whether the Government has conducted any study to assess the effects of these projects in the flow of water in the Ganga and its tributaries, if so, the details thereof;
- (c) whether the Government has constituted any inter-ministerial committee to suggest ways and revenues to ensure unobstructed flow of water in the Ganga and protection of environment from hydropower projects; and
- (d) the time by which the committee is likely to submit its report to the Government?

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) : At present, nine (9) Hydro Electric Projects (HEPs) (above 25 MW) with an aggregate installed capacity of 2585 MW are under construction on the river Ganga and its tributaries.

A 12 member Expert Body (EB) was constituted by Ministry of Environment, Forests & Climate Change (MoEF&CC) on 03.06.2015 with representatives from Central Electricity Authority, Central Water Commission, Ministry of Environment & Forest, Govt. of Uttarakhand, National Institute of Rock Mechanics, Indian Council of Forestry Research & Education, Indian Institute

of Science Education & Research, Tata Institute of Social Sciences and Indian Institute of Science under the convenor-ship of Joint Secretary, MoEF&CC to make recommendations regarding longitudinal connectivity and month wise e-flow including other safety measures during tunneling, muck disposal, transportation, disaster mitigation etc. for six HEPs. The report in respect of the 6 HEPs has since been finalized by the EB in Oct., 2015, which was submitted by MoEF&CC to the Hon'ble Supreme Court on 05.11.2015. Subsequently, MoEF&CC has also filed an affidavit on 06.01.2016, stating that design modification would be required for two projects, namely, Kotlibhel-IA & Alaknanda HEPs, while 3 other projects, namely, Lata Tapovan, Bhyundar Ganga and Khairo Ganga could be implemented in accordance with the recommendations of the Expert Body Report as well as fulfilling the criteria indicated in the Report. However, the stand of the Government viz. Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD&GR), Ministry of Power and MoEF&CC before the Hon'ble Supreme Court is to be finalised. One project namely Jhelam Tamak HEP (108 MW) is yet to be concurred by CEA.

(c) & (d) : An Inter-Ministerial Group (IMG) was set up under the chairmanship of Sh. B.K. Chaturvedi (Member), Planning Commission in June'2012 for the various objectives including suggesting environmental flow requirement for various stretches of Bhagirathi, Alaknanda and other tributaries of river Ganga and to review the environmental impacts of the hydro projects proposed on these tributaries of river Ganga and recommend necessary remedial action. Report of the IMG on issues relating to river Ganga was submitted in April, 2013.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2630
ANSWERED ON 01.12.2016

ELECTRICITY PLAN

2630. SHRI PRATHAP SIMHA:

Will the Minister of POWER
be pleased to state:

- (a) whether Central Electricity Authority (CEA) is working on an Electricity Plan for the next five years to gauge the demand for power in the country, if so, the details thereof;
- (b) the estimated capacity addition of power during 12th Plan period and the contribution of coal based thermal power therein;
- (c) the steps being taken by the Government on standards on construction, operation and maintenance of power equipment for renewable electricity systems for grid stability; and
- (d) whether 40 per cent of power projects are super critical during the current plan period 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) : Section 3(4) of the Electricity Act, 2003 stipulates that the Central Electricity Authority (CEA) shall prepare a National Electricity Plan in accordance with the National Electricity Policy and notify such plan once in five years. The last National Electricity Plan covering the review of 11th Five Year Plan, detailed plan for 12th Plan and perspective Plan for 13th Plan was notified in the Gazette in December, 2013.

The National Electricity Plan covering review of 12th Five Year Plan, detailed plan for years 2017-22 and perspective plan for 2022-27 is under preparation by CEA.

For estimating the electricity demand of all the States/Union Territories, Regions and for the country, the CEA periodically carries out Electric Power Survey. The 18th Electric Power Survey (EPS) Report, the latest in the series of EPS, was published in December, 2011.

To re-assess the demand for power in the country for the next five years and beyond, the 19th Electric Power Survey Committee (EPSC) has been constituted by the CEA. The report of the committee is under finalization.

(b) : As per information made available by CEA, the estimated generation capacity addition from conventional sources during the 12th Plan period (2012-17) is 1,02,811 MW which includes 86,750 MW coal based capacity.

(c) : With a view to ensuring maintenance of grid stability subsequent to connection of a renewable energy generator, steps have been taken to amend Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 (as amended in 2013.) These regulations lay down certain Technical/operational requirements to be met by different kinds of generators including the renewable energy generators seeking connectivity with the grid. The draft amendment to the aforesaid regulations has been published on CEA's website on 08.11.2016 and comments thereon have been invited from the public by 31.12.2016.

(d) : As per information made available by CEA, during the current plan period (2012-17), the total supercritical based coal power generating capacity is likely to be 35,890 MW which is around 41.0% of the total likely coal based capacity addition of 86,750 MW. The list of Supercritical Units commissioned/ to be commissioned during 12th Plan is given at Annex.

ANNEX REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 2630 ANSWERED IN THE LOK SABHA ON 01.12.2016.

Super Critical Units Commissioned during 12TH Plan(as on 15/11/2016)					
State	Project Name	Impl Agency/ Make	Unit No	Cap. MW	Actual Comm. Date
(A) Commissioned from 12th Plan Targeted					
	<i>CENTRAL SECTOR</i>				
Chhattisgarh	Sipat-I	NTPC	U-3	660	02.06.12
Bihar	Barh -II	NTPC	U-4	660	30.11.13
Bihar	Barh -II	NTPC	U-5	660	04.03.15
		Total Central Sector		1980	
	<i>STATE SECTOR</i>				
Andhra Pradesh	Damodaram Sanjeevaiah TPS	APPDL	U-1	800	28.08.14
Andhra Pradesh	Damodaram Sanjeevaiah TPS	APPDL	U-2	800	17.03.15
Maharashtra	Koradi TPS Expn.	MSPGCL	U-8	660	30.03.15
		Total State Sector		2260	
	<i>PRIVATE SECTOR</i>				
Andhra Pradesh	Painampuram TPP	Thermal Power Tech Corp. Ltd	U-1	660	07.02.15
Andhra Pradesh	Painampuram TPP	Thermal Power Tech Corp. Ltd	U-2	660	05.09.15
Andhra Pradesh	NCC TPP	NCC Power Projects Ltd	U-1	660	12.11.16
Gujarat	Mundra UMTTP	Tata Power Co.	U-2	800	25.07.12
Haryana	Jajjar TPP (Mahatama Gandhi TPP)	CLP Power India Pvt. Ltd	U-2	660	11.04.12
Maharashtra	Tirora TPP Ph-I	Adani Power Ltd	U-1	660	11.09.12
Maharashtra	Tirora TPP Ph-I	Adani Power Ltd	U-2	660	25.03.13
Maharashtra	Tirora TPP Ph-II	Adani Power Ltd	U-1	660	10.06.13
Madhya Pradesh	Sasan UMPP	Reliance Power Ltd.	U-3	660	30.05.13
Madhya Pradesh	Sasan UMPP	Reliance Power Ltd.	U-2	660	18.12.13
Punjab	Rajpura TPP (Nabha)	Nabha Power Ltd	U-1	700	24.01.14
Punjab	Rajpura TPP (Nabha)	Nabha Power Ltd	U-2	700	06.07.14
Punjab	Talwandi Sabo TPP	M/s Sterlite	U-1	660	17.06.14
Punjab	Talwandi Sabo TPP	M/s Sterlite	U-2	660	30.10.15
Punjab	Talwandi Sabo TPP	M/s Sterlite	U-3	660	29.03.16
Uttar Pradesh	Prayagraj (Bara) TPP	Prayagraj power Gen. Co.Ltd(J.P.Power Ventures)	U-1	660	25.12.15
Uttar Pradesh	Prayagraj (Bara) TPP	Prayagraj power Gen. Co.Ltd(J.P.Power Ventures)	U-2	660	06.09.16
		Total Private Sector		11440	
	Total 12th Plan Target Commissioned			15680	
(B) Additional Units Commissioned , Not in the 12th Plan Target					
	<i>Central Sector</i>				
Maharashtra	Mouda STPP -II	NTPC	U-3	660	28.03.16
		Sub-Total		660	
	<i>State Sector</i>				
Karnataka	Bellary TPS- St-III	KPCL	U-3	700	01.03.16
Karnataka	Yermaus TPP	KPCL	U-1	800	29.03.16
Maharashtra	Koradi TPS Expn.	MSPGCL	U-9	660	28.03.16
		Sub-Total		2160	
	<i>PRIVATE SECTOR</i>				
Chhattisgarh	Raikheda TPP	GMR Chhattisgarh Energy Ltd.	U-1	685	27.02.15
Chhattisgarh	Raikheda TPP	GMR Chhattisgarh Energy Ltd.	U-2	685	28.03.16
Gujarat	Mundra UMTTP	Tata Power Co.	U-3	800	16.10.12
Gujarat	Mundra UMTTP	Tata Power Co.	U-4	800	16.01.13
Gujarat	Mundra UMTTP	Tata Power Co.	U-5	800	18.03.13
Maharashtra	Tirora TPP Ph-II	Adani Power Ltd	U-2	660	23.03.14
Maharashtra	Tirora TPP Ph-II	Adani Power Ltd	U-3	660	25.09.14
Rajasthan	Kawai TPP	Adani Power Ltd.	U-1	660	28.05.13
Rajasthan	Kawai TPP	Adani Power Ltd.	U-2	660	24.12.13
Madhya Pradesh	Sasan UMPP	Reliance Power Ltd.	U-4	660	25.03.14

Madhya Pradesh	Sasan UMPP	Reliance Power Ltd.	U-1	660	21.05.14
Madhya Pradesh	Sasan UMPP	Reliance Power Ltd.	U-5	660	24.08.14
Madhya Pradesh	Sasan UMPP	Reliance Power Ltd.	U-6	660	19.03.15
Madhya Pradesh	Nigri TPP	Jaiprakash Power ventures Ltd	U-1	660	29.08.14
Madhya Pradesh	Nigri TPP	Jaiprakash Power ventures Ltd	U-2	660	17.02.15
Uttar Pradesh	Lalitpur TPP	Lalitpur power Generation Co. Ltd	U-2	660	08.01.16
Uttar Pradesh	Lalitpur TPP	Lalitpur power Generation Co. Ltd	U-1	660	26.03.16
Uttar Pradesh	Lalitpur TPP	Lalitpur power Generation Co. Ltd	U-3	660	01.04.16
		Total Private Sector		12350	
		Total Additional		15170	
		Grand Total Commissioned		30850	

(c) To be Commissioned during the remaining period of 2016-17 (12th Plan)

<u>CENTRAL SECTOR</u>				
Chhattisgarh	Lara STPP	NTPC	U-1	800
Karnataka	Kudgi TPP	NTPC	U-1	800
Maharashtra	Mauda STPP-II	NTPC	U-4	660
		Total Central Sector		2260
<u>STATE SECTOR</u>				
Karnataka	Yermarus TPP	KPCL	U-2	800
Maharashtra	Koradi TPP	MSPGCL	U-10	660
		Total State Sector		1460
<u>PRIVATE SECTOR</u>				
Andhra Pradesh	NCC TPP	NCC	U-2	660
Odisha	Lanco Babandh TPP	Lanco Babandh	U-1	660
		Total Private Sector		1320
	Thermal Capacity to be Commissioned in the remaining period of 2016-17			5040
	Total Super Critical during 12th Plan			35890

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2632
ANSWERED ON 01.12.2016

T&D LOSSES

2632. SHRI VISHNU DAYAL RAM:

Will the Minister of POWER
be pleased to state:

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

A N S W E R

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

(SHRI PIYUSH GOYAL)

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

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

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

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

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

Further, as on 22.11.2016, the States of Jharkhand, Chhattisgarh, Rajasthan, Uttar Pradesh, Gujarat, Bihar, Punjab, Jammu & Kashmir, Haryana, Uttarakhand, Goa, Karnataka, Andhra Pradesh, Manipur, Madhya Pradesh, Maharashtra and Puducherry have signed Memorandum of Understanding under Ujwal DISCOM Assurance Yojana (UDAY) with an objective of operational and financial turnaround of DISCOMs.

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

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

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

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

ANNEX REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 2632 ANSWERED IN THE LOK SABHA ON 01.12.2016.

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

	Punjab	PSPCL	261	94	249	249	133	-1,100	
	Punjab Total		261	94	249	249	133	-1,100	
	Rajasthan	AVVNL	-3,905	-3,905	-4,843	-4,843	-3,593	-3,593	
		JDVVNL	-4,285	-4,285	-5,299	-5,299	-4,146	-4,146	
		JVVNL	-4,161	-4,161	-5,503	-5,503	-4,735	-4,735	
	Rajasthan Total		-12,351	-12,351	-15,645	-15,645	-12,474	-12,474	
	Uttar Pradesh	DVVN	-3,364	-3,364	-5,521	-5,521	-2,936	-2,936	
		KESCO	-545	-545	-674	-674	-168	-168	
		MVVN	-2,033	-2,033	-3,263	-3,263	-1,994	-1,994	
		Pash VVN	-1,303	-1,303	-3,172	-3,172	-1,577	-1,577	
		Poorv VVN	-2,533	-2,533	-4,095	-4,095	-2,000	-2,000	
	Uttar Pradesh Total		-9,778	-9,778	-16,724	-16,724	-8,675	-8,675	
	Uttarakhand	Ut PCL	-16	-16	323	323	-260	-260	
	Uttarakhand Total		-16	-16	323	323	-260	-260	
	Northern Total		-28,647	-28,814	-37,521	-37,521	-27,012	-28,245	
	Southern	Andhra Pradesh	APCPDCL	-7,718	-7,718	-811	-811	0	
			APEPDCL	-1,681	-1,681	-136	-136	-722	-722
			APNPDC	-3,436	-3,445	-31	-31	0	0
			APSPDCL	-4,673	-4,678	-401	-401	-1,675	-1,827
	Andhra Pradesh Total		-17,508	-17,522	-1,379	-1,379	-2,397	-2,549	
	Karnataka	BESCOM	-433	-433	76	76	113	113	
		CHESCOM	-270	-337	-16	-72	40	37	
		GESCOM	-189	-189	38	38	-110	-110	
		HESCOM	41	41	-576	-576	30	30	
		MESCOM	13	13	0	0	14	14	
	Karnataka Total		-838	-905	-478	-534	88	85	
	Kerala	KSEB	241	241	140	140		0	
		KSEBL		0	-24	-24	-1,273	-1,273	
	Kerala Total		241	241	116	116	-1,273	-1,273	
	Puducherry	Puducherry PD	-308	-308	-60	-60	157	157	
	Puducherry Total		-308	-308	-60	-60	157	157	
	Tamil Nadu	TANGEDCO	-11,679	-12,064	-13,985	-14,052	-12,757	-12,757	
	Tamil Nadu Total		-11,679	-12,064	-13,985	-14,052	-12,757	-12,757	
	Telangana	TSNPDC		0		0	-1,343	-1,741	
		TSSPDCL		0		0	-1,171	-1,171	
	Telangana Total			0		0	-2,513	-2,912	
	Southern Total		-30,092	-30,559	-15,786	-15,909	-18,695	-19,249	
	Western	Chhattisgarh	CSPDCL	-498	-498	-630	-630	-1,554	-1,569
	Chhattisgarh Total		-498	-498	-630	-630	-1,554	-1,569	
	Goa	Goa PD	-285	-285	-4	-4	-17	-17	
	Goa Total		-285	-285	-4	-4	-17	-17	
	Gujarat	DGVCL	25	25	52	52	51	51	
		MGVCL	21	21	19	19	29	29	
		PGVCL	11	11	10	10	11	11	
		UGVCL	14	14	14	14	17	17	
	Gujarat Total		71	71	95	95	108	108	
	Madhya Pradesh	MP Madhya Kshetra VVCL	-1,593	-1,595	-2,672	-2,672	-2,728	-2,765	
		MP Paschim Kshetra VVCL	-1,425	-1,425	-1,811	-1,811	-1,061	-1,061	
		MP Purv Kshetra VVCL	-1,432	-1,432	-1,887	-1,893	-1,162	-1,175	
	Madhya Pradesh Total		-4,450	-4,452	-6,370	-6,376	-4,950	-5,001	
	Maharashtra	MSEDCL	-871	-871	-280	-280	-366	-366	
	Maharashtra Total		-871	-871	-280	-280	-366	-366	
	Western Total		-6,034	-6,036	-7,190	-7,196	-6,780	-6,845	
	Grand Total		-70,835	-71,621	-67,041	-67,336	-56,206	-58,275	

ANNEX REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 2632 ANSWERED IN THE LOK SABHA ON 01.12.2016.

STATES WHICH HAVE IMPLEMENTED POWER REFORMS IN THE COUNTRY

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

*Tripura has corporatized its Electricity Department.

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

ANNEX REFERRED TO IN REPLY TO PARTS (c) to (e) OF UNSTARRED QUESTION NO. 2632 ANSWERED IN THE LOK SABHA ON 01.12.2016.

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

	Rajasthan	AVVNL	19.90	22.06	28.13
		JDVVNL	18.97	25.71	26.99
		JVVNL	20.91	31.08	32.00
	Rajasthan Total		20.00	26.77	29.28
	Uttar Pradesh	DVVN	45.69	36.47	40.18
		KESCO	37.61	34.29	32.02
		MVVN	45.83	14.43	35.18
		Pash VVN	33.39	23.49	22.19
		Poorv VVN	52.37	20.09	42.91
	Uttar Pradesh Total		42.85	24.67	33.82
	Uttarakhand	Ut PCL	23.18	19.01	18.82
	Uttarakhand Total		23.18	19.01	18.82
	Northern Total		28.89	24.86	28.06
Southern	Andhra Pradesh	APCPDCL	15.64	17.54	
		APEPDCL	10.15	6.57	7.67
		APNPDCL	13.09	20.80	
		APSPDCL	12.74	11.77	12.01
	Andhra Pradesh Total		13.70	14.77	10.55
	Karnataka	BESCOM	20.45	18.93	17.59
		CHESCOM	30.42	33.92	21.64
		GESCOM	18.28	30.45	21.25
		HESCOM	20.44	20.42	19.49
		MESCOM	14.57	14.83	15.72
	Karnataka Total		20.78	22.02	18.71
	Kerala	KSEB	12.32	11.45	
		KSEBL		22.99	17.64
	Kerala Total		12.32	16.48	17.64
	Puducherry	Puducherry PD	9.13	16.18	16.64
	Puducherry Total		9.13	16.18	16.64
	Tamil Nadu	TANGEDCO	20.71	22.35	24.74
	Tamil Nadu Total		20.71	22.35	24.74
	Telangana	TSNPDCL			16.49
		TSSPDCL			11.91
	Telangana Total				13.23
	Southern Total		17.40	19.08	18.22
Western	Chhattisgarh	CSPDCL	25.12	23.17	27.84
	Chhattisgarh Total		25.12	23.17	27.84
	Goa	Goa PD	14.14	10.72	13.31
	Goa Total		14.14	10.72	13.31
	Gujarat	DGVCL	10.40	10.83	10.81
		MGVCL	14.94	14.77	11.47
		PGVCL	30.41	24.12	25.18
		UGVCL	14.37	9.10	10.21
	Gujarat Total		19.87	15.93	16.06
	Madhya Pradesh	MP Madhya Kshetra VVCL	29.97	29.60	32.47
		MP Paschim Kshetra VVCL	28.16	21.15	30.79
		MP Purv Kshetra VVCL	36.40	34.83	27.09
	Madhya Pradesh Total		31.15	28.03	30.26
	Maharashtra	MSEDCL	21.95	14.39	19.75
	Maharashtra Total		21.95	14.39	19.75
	Western Total		23.36	18.37	21.59
	Grand Total		25.48	22.58	24.62

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2654
ANSWERED ON 01.12.2016

BHAKRA BEAS MANAGEMENT BOARD

†2654. SHRI MANSHANKAR NINAMA:

Will the Minister of POWER
be pleased to state:

- (a) the details of the fixed tenure given to the Member States in the Bhakra Beas Management Board (BBMB);
- (b) whether the State of Rajasthan has been given proper representation in the said board;
- (c) if so, the details thereof and if not, the reasons therefor;
- (d) the number of meetings of BBMB held till date; and
- (e) the details of the decisions taken in the said meetings and the follow-up action taken on those decisions?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : BBMB Rules, 1974 Para 3(1) provides that:

"Notwithstanding the terms and conditions of service obtaining in his/her parent department and superannuation from his/her parent department, the Chairman or a whole-time Member shall continue to hold office for a term of three years from the date on which he/she assumes charge of his/her office:

Provided that the Chairman or a whole-time Member shall be eligible for re-appointment for a further term of three years:

Provided further that the Chairman or a whole-time Member shall not hold office beyond the age of sixty years:

Provided also that total tenure including the extended period and intervening period between first and second appointment, if any, on the post of Chairman or whole-time Member, Bhakra Beas Management Board shall not exceed six years."

.....2.

(b) & (c) : The Board of BBMB has representative of the rank of ACS/Principal Secretary/Secretary from Rajasthan Government. In addition, out of four key posts in BBMB Secretariat viz: Secretary, Special Secretary, Director (HRD) and Director (Security), one post each is being manned by one officer each from the partner States i.e. Punjab, Haryana, Rajasthan and Himachal Pradesh. Presently, an officer in the rank of Superintending Engineer from Rajasthan has been posted as Director/HRD in Board Secretariat. Rajasthan is also being given appropriate representation in BBMB organization and various officers from Rajasthan have been posted as per their share.

(d) : Till date, the Board has conducted 223 meetings.

(e) : The important decisions of these meetings are available in the Minutes issued from time to time which are voluminous in nature. However, the important information is available on BBMB Website i.e. bbmb.gov.in. Follow up action, as required, is taken on all decisions.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2669
ANSWERED ON 01.12.2016

ELECTRIFICATION OF REMOTE VILLAGES

2669. KUNWAR HARIBANSH SINGH:
SHRI S.R. VIJAYAKUMAR:
SHRI T. RADHAKRISHNAN:
SHRI GAJANAN KIRTIKAR:
SHRI SUDHEER GUPTA:
SHRI BIDYUT BARAN MAHATO:
DR. SUNIL BALIRAM GAIKWAD:
SHRI ASHOK SHANKARRAO CHAVAN:
SHRI DEVAJIBHAI G. FATEPARA:
SHRI GOPAL SHETTY:
SHRI OM BIRLA:

Will the Minister of POWER
be pleased to state:

- (a) whether the Government has covered villages under Remote Village Electrification Programme in the country and if so, the criteria fixed by the Union Government in this regard;
- (b) the number of remote villages electrified so far and the number of them yet to be electrified and the time-frame for the same, State/UT-wise including Gujarat;
- (c) whether the Union Government has received proposals for electrification of villages situated in inaccessible areas including backward villages and remote villages in the forest areas through new and renewable energy sources during the last three years and the current year;
- (d) if so, the details thereof and the number of such proposals approved, and number of them are still lying pending for approval, State/UT-wise; and
- (e) whether the Government is aware that most of solar lighting system is not functioning properly and if so, the details thereof and the reasons for the same and the steps taken/being taken by the Government for properly maintaining comprehensive contract for the solar system installed in the villages?

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. Government has implemented Remote Village Electrification Programme (RVEP) under Ministry of New & Renewable Energy (MNRE) in various States to provide basic lighting through Renewable Energy Sources in un-electrified villages and hamlets of electrified census villages. The criteria was the villages with population more than 300; the Village should be situated at least 3 Kms from the nearest

distribution transformers of the Grid and were not covered under Rajeev Gandhi Gramin Vidyutikaran Yojana (RGGVY). The un-covered households which existed as on 31.12.2008, of eligible villages and hamlets which had been earlier taken up under RVEP also included in the criteria.

(b) : MNRE has covered 9006 villages and 2329 hamlets under RVEP so far. State-wise list furnishing number of electrified villages including Gujarat is given at Annexure-I.

(c) & (d) : Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) also provides for electricity access through renewable energy to inaccessible and remotely situated un-electrified villages/habitations where grid connectivity is either not feasible or not cost effective. The State-wise details of projects approved during the last three years and the current year including the backward villages and remote villages, is given at Annexure-II. No proposal is pending for approval.

(e) : Solar Lighting Systems under RVEP are installed with 5 years maintenance. No complaint has been received till now by the MNRE about the non-functioning of Solar Lighting Systems.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 2669 ANSWERED IN THE LOK SABHA ON 01.12.2016.

State-wise list of number of electrified villages including Gujarat

Sl. No.	State	Total Villages Sanctioned	Villages Completed	Total Hamlets sanctioned	Hamlets completed
1.	Arunachal Pradesh	297	297	1	0
2.	Andhra Pradesh	0	0	13	13
3.	Assam	2192	1953	0	0
4.	Chhattisgarh	682	568	0	0
5.	Gujarat	38	38	0	0
6.	Haryana	0	0	286	286
7.	Himachal Pradesh	21	21	1	0
8.	Jammu & Kashmir	476	334	283	15
9.	Jharkhand	720	700	0	0
10.	Karnataka	22	16	57	14
11.	Kerala	0	0	607	607
12.	Madhya Pradesh	623	577	0	0
13.	Maharashtra	353	340	0	0
14.	Manipur	237	237	3	3
15.	Meghalaya	163	149	0	0
16.	Mizoram	20	20	0	0
17.	Nagaland	11	11	0	0
18.	Odisha	1720	1614	23	14
19.	Rajasthan	340	305	90	90
20.	Sikkim	0	0	13	13
21.	Tamil Nadu	0	0	184	131
22.	Tripura	85	60	944	782
23.	Uttarakhand	671	476	147	118
24.	Uttar Pradesh	284	113	223	222
25.	West Bengal	1201	1177	9	2
26.	Goa			19	19
Total		10156	9006	2903	2329

ANNEXURE REFERRED TO IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION NO. 2669 ANSWERED IN THE LOK SABHA ON 01.12.2016.

DDG Projects sanctioned in following Financial Years			
Sl. No.	State Name	No. Of Projects	UEVs/Hamlets
Projects sanctioned in 2013-14			
1	Andhra Pradesh	205	205
2	Chhattisgarh	24	24
3	Jharkhand	43	89
4	Karnataka	93	205
5	Kerala	15	15
6	Meghalaya	3	3
7	Odisha	7	7
8	Rajasthan	42	42
Total		432	590

Sl. No.	State Name	No. Of Projects	UEVs/Hamlets
Projects sanctioned in 2015-16			
1	Assam	521	521
2	Arunachal Pradesh	1000	1000
3	Chhattisgarh	206	161
4	Jharkhand	340	351
5	Karnataka	2	3
6	Madhya Pradesh	154	242
7	Meghalaya	77	77
8	Odisha	269	272
Total		2569	2627

Sl. No.	State Name	No. Of Projects	UEVs/Hamlets
Projects sanctioned in 2016-17			
1	Andhra Pradesh	165	165
2	Arunachal Pradesh	176	176
3	Chhattisgarh	383	383
4	Jharkhand	82	82
5	Karnataka	30	30
6	Meghalaya	132	132
7	Uttarakhand	13	13
Total		981	981
Total		3982	4198

Note: No projects sanctioned in FY 2014-15

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2706
ANSWERED ON 01.12.2016

CONSERVATION OF POWER

2706. SHRI RAYAPATI SAMBASIVA RAO:

Will the Minister of POWER
be pleased to state:

- (a) whether any specific programme has been initiated during the last two years and the current year to highlight the importance of conservation of power with growing energy needs of the country;
- (b) if so, the details thereof;
- (c) if not, the reasons therefor;
- (d) the steps being taken by the Government to ensure promotion of energy efficiency in the country; and
- (e) the major initiatives taken by the Union Government to ensure reduction of leakages when it comes to usage of electric devices?

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) : Hon'ble Prime Minister of India launched Unnat Jyoti By Affordable LEDs For All (UJALA) programme and Street Light National Programme (SLNP) on 5th January, 2015, which is being implemented by Energy Efficiency Services Limited (EESL), a joint venture company of Public Sector Undertakings (PSUs) under the Ministry of Power. Under this programme, household lighting and street lights respectively are replaced with LEDs. EESL has developed an innovative business model in which the entire investment in these programmes is made by EESL and is paid back over a time from energy savings. This obviates a need for any government funding for this programme. There is no element of subsidy in the scheme. The aggregation of demand and bulk procurement has resulted in reduction of approximately 88% in procurement prices of LED bulbs from Rs.310/- (February, 2014) to Rs.38/- (August 2016) (the retail price reduced from Rs.550/- to Rs.65/-) which is passed on to the consumers.

.....2.

(d) : The following initiatives have been taken up by the Government to ensure promotion of energy efficiency in the country:

- (i) Standards & Labeling programme for appliances to provide the consumer an informed choice about the energy saving and thereby the cost saving potential of the relevant marketed product.
- (ii) Prescription of Specific energy consumption norms for energy intensive industries notified as designated consumers and implemented through Perform Achieve and Trade (PAT) Scheme.
- (iii) Formulation of Energy Conservation Building Codes (ECBC) for energy efficiency improvement in commercial buildings.
- (iv) Design-guidelines for energy efficiency in multi-storied residential buildings.
- (iv) Demand Side Management (DSM) in Municipal, Household, Agriculture and Small & Medium Enterprises (SME) sectors.
- (v) Promotion of energy efficient LED lamps through DSM based Unnat Jyoti by Affordable LEDs for All (UJALA) & Street Lighting National Programme (SLNP).
- (vi) Promotion of Energy Efficient Fans and Agriculture pumpsets.

(e) : The Government has taken initiatives to promote the use of energy efficient appliances/gadgets across the country. The Energy Conservation Act, 2001, under section 14, empowers the Central Government to develop a Standards & Labelling (S&L) programme which was launched during May 2006, by the Ministry of Power, Government of India. The Bureau of Energy Efficiency (BEE) defines the energy performance standards for appliances and equipment and promote and facilitates its adoption through several training, awareness and capacity building programs. The energy efficiency programmes coupled with label that describe energy performance, enable consumers to make informed choice for purchasing efficient products that save energy and reduce expenses.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2714
ANSWERED ON 01.12.2016

DBT FOR ELECTRICITY SUBSIDIES

2714. SHRI KALIKESH N. SINGH DEO:

Will the Minister of POWER
be pleased to state:

- (a) whether the Union Government is planning to introduce Direct Benefit Transfer Scheme for electricity subsidies;
- (b) if so, the details thereof and the time frame for the same;
- (c) the details of States which will be considered for implementation; and
- (d) the details of categories of consumers which would benefit through this scheme?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) to (d) : Administration of Electricity tariffs and subsidies is done by the respective States/Power Distribution utilities under regulatory oversight by respective State Regulators. Thus, the question of introduction of Direct Benefit Transfer Scheme for Electricity Subsidies by the Union Government does not arise.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2716
ANSWERED ON 01.12.2016

MODERNISATION OF POWER PLANTS

†2716. DR. VIRENDRA KUMAR:

Will the Minister of POWER
be pleased to state:

- (a) whether the Government proposes to modernise some of the old thermal and hydro power plants during present plan period;
- (b) if so, the details thereof including the augmentation in their production capacity and the expenditure involved therein, plant-wise;
- (c) whether any cost profit study has been conducted in this regard; 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) : Decision to undertake Renovation and Modernization (R&M) and Life Extension (LE) works of existing old power plants or replacement with new efficient supercritical units is taken by the concerned State and Central power utilities depending on their requirement. The generating utilities plan the R&M/LE works/replacement works considering the condition of machine, grid requirements and cost effectiveness.

The cost profit study is carried out by the concerned utilities on case to case basis prior to implementation of LE works.

The details of Thermal power plants identified for Life Extension(LE)/ Renovation and Modernisation (R&M) during the 12th Five Year Plan period and the plants where the augmentation of generation capacity has been achieved and estimated cost incurred are given at Annex-I. The details of Hydro power plants identified for LE/R&M during the 12th Five Year Plan period along with benefits and estimated cost are given in Annex-II.

ANNEX REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 2716 ANSWERED IN THE LOK SABHA ON 01.12.2016.

A. Details of potential thermal generating units identified for Life Extension (LE) / Renovation & Modernisation (R&M) during the 12th Plan period

STATE SECTOR

(i) LE Programme

Sl. No.	State	Name of Station	Unit No.	Capacity (MW)
1	U.P.	Obra	10	200
2		Obra	11	200
3		Obra	12	200
4		Obra	13	200
5		Harduaganj	7	110
6		Parichha	1	110
7		Parichha	2	110
8	Punjab	Bathinda	3	110
9		Bathinda	4	110
10	Haryana	Panipat	3	110
11		Panipat	4	110
12	Maharashtra	Nashik	3	210
13		Nashik	4	210
14		Koradi	5	200
15		Koradi	6	210
16		Bhusawal	2	210
17		Bhusawal	3	210
18		Chandrapur	1	210
19		Chandrapur	2	210
20		Parli	3	210
21	Chhattisgarh	Korba (West)	1	210
22		Korba (West)	2	210
23	M.P.	Satpura	6	200
24		Satpura	7	210
25	Tamil Nadu	Tuticorin	1	210
26		Tuticorin	2	210
27	A.P.	Dr. N.T. TPS (Vijaywada)	1	210
28		Dr. N.T. TPS (Vijaywada)	2	210
29	Karnataka	Raichur	1	210
30		Raichur	2	210
31	Bihar	Barauni	6	110
32		Barauni	7	110
33		Muzaffarpur	1	110
34		Muzaffarpur	2	110
35	W. Bengal	Kolaghat	1	210
36		Kolaghat	2	210
37		Kolaghat	3	210
38		Bandel	5	210

(ii) R&M Programme

S.N.	State	Name of Station	Unit No.	Capacity (MW)
1	U.P.	Obra	7	100
2		Anpara	1	210
3		Anpara	2	210
4		Anpara	3	210
5		Anpara'B	4	500
6		Anpara'B	5	500
7	Punjab	Ropar	1	210
8		Ropar	2	210
9		Ropar	5	210
10		Ropar	6	210
11	Haryana	Panipat	5	210
12	Gujarat	Wanakbori	1	210
13		Wanakbori	2	210
14		Ukai	3	200
15		Ukai	4	200
16	Rajasthan	Kota	1	110
17		Kota	2	110
18	Jharkhand	Patratu	9	110
19		Patratu	10	110
20	W. Bengal	DPL	6	110

CENTRAL SECTOR

(i) LE Programme

S.N.	Utility	Name of Station	Unit No.	Capacity (MW)
1	DVC	Bokaro 'B'	1	210
2		Bokaro 'B'	2	210
3		Bokaro 'B'	3	210
4		Durgapur	4	210
5	NTPC	Badarpur	4	210
6		Badarpur	5	210
7		Singrauli STPS	1	200
8		Singrauli STPS	2	200
9		Singrauli STPS	3	200
10		Singrauli STPS	4	200
11		Singrauli STPS	5	200
12		Korba STPS	1	200
13		Korba STPS	2	200
14		Korba STPS	3	200
15		Ramagundam STPS	1	200
16		Ramagundam STPS	2	200
17		Ramagundam STPS	3	200
18		Dadri GT	GT-1	131
19		Dadri GT	GT-2	131
20		Dadri GT	GT-3	131
21		Dadri GT	GT-4	131
22		Auraiya GT	GT-1	111.19
23		Auraiya GT	GT-2	111.19
24		Auraiya GT	GT-3	111.19
25		Auraiya GT	GT-4	111.19
26		Kawas GT	GT-1A	106
27		Kawas GT	GT-1B	106
28		Kawas GT	GT-2A	106
29		Kawas GT	GT-2B	106
30		Gandhar GT	GT-1	131
31		Gandhar GT	GT-2	131
32		Gandhar GT	GT-3	131

(ii) R&M Programme

Sl. No.	Utility	Name of Station	Unit No.	Capacity (MW)
1	NTPC	Singrauli STPS	6	500
2		Singrauli STPS	7	500
3		Korba STPS	4	500
4		Korba STPS	5	500
5		Korba STPS	6	500
6		Ramagundam STPS	4	500
7		Ramagundam STPS	5	500
8		Ramagundam STPS	6	500
9		Farakka Stage-II	4	500
10		Farakka Stage-II	5	500
11		Tanda	2	110
12		Unchahar	1	210
13		Unchahar	2	210
14		Unchahar	3	210
15		Unchahar	4	210
16		Vindhyachal	1	210
17		Vindhyachal	2	210
18		Vindhyachal	3	210
19		Vindhyachal	4	210
20		Vindhyachal	5	210
21		Vindhyachal	6	210
22		Vindhyachal	7	500
23		Vindhyachal	8	500
24		Simhadri	1	500
25		Simhadri	2	500
26		Talchar STPS	1	500
27		Talchar STPS	2	500
28		Dadri	1	210
29		Dadri	2	210
30		Dadri	3	210
31		Dadri	4	210
32		Rihand STPS Ph III	1	500
33		Rihand STPS Ph III	2	500
34		Kahalgaon	1	210
35		Kahalgaon	2	210
36		Kahalgaon	3	210
37		Kahalgaon	4	210
38	NEEPCO	Kathalguri CCGT	GT-1	33.50
39		Kathalguri CCGT	GT-2	33.50
40		Kathalguri CCGT	GT-3	33.50
41		Kathalguri CCGT	GT-4	33.50
42		Kathalguri CCGT	GT-5	33.50
43		Kathalguri CCGT	GT-6	33.50
44		Kathalguri CCGT	ST-1	30.00
45		Kathalguri CCGT	ST-2	30.00

B. List of Thermal LE/ R&M schemes implemented during the 12th Plan period along with benefits and estimated cost (As on 30.09.2016)

Unit Name / Utility / State	Initial capacity (MW)	Achieved capacity (MW)	Augmented	Incurring (Tentative) (in crore)	Cost
Bandel TPS(Unit-5) / WBPDCCL / West Bengal	210	215		592.00	
Bhatinda TPS (Unit-3) / PSPCL / Punjab	110	120		215.00	
Bhatinda TPS (Unit 4) / PSPCL / Punjab	110	120		215.00	
Sabarmati TPS (Unit E) / Torrent Power / Gujarat	110	120		177.10	
Sabarmati TPS (Unit F) / Torrent Power / Gujarat	110	120		169.65	
Harduaganj TPS(Unit 7) / UPRVUNL / U.P.	110	120		299.00	

ANNEX REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 2716 ANSWERED IN THE LOK SABHA ON 01.12.2016.

State-wise List of Hydro LE/ R&M schemes identified during the 12th Plan period along with benefits and estimated cost (As on 30.09.2016)

S. No	Project, Agency	Inst. Cap. (MW)	Est. Cost (Prov.)	Actual Exp.	Benefits (MW)	Category
Odisha						
1	Rengali Unit-1 OHPC	1x50	47.50	36.76	50(LE)	RM&LE
2	Rengali Unit-2 OHPC	1x50	25.2 (approx)	20.73	50(LE)	RM&LE
Himachal Pradesh						
3	Bassi, HPSEB	4x15	124.25	158.26	6.0(U)+60 (LE)	RMU&LE
Andhra Pradesh						
4	Lower Sileru, APGENCO	4x115	8.75	6.77	-	R&M
5	Srisaillam RB, APGENCO	7x110	16.70	16.62	-	R&M
Telangana						
6	Nagarjuna Sagar Ph-I works, TSGENCO	1x110+7x100.8	33.35	13.90	-	R&M
Kerala						
7	Idamalayar, KSEB	2x37.5	14.50	13.22	-	R&M
8	Sabarigiri, KSEB Unit-4	1x55	52.2	50.41	5(U)	RM&U
9	Poringalkuthu, KSEB	4x8	88.63	51.63	4 (U) +32.00 (LE)	RMU&LE
Assam						
10	Khandong, NEEPCO	1x25	25.05	29.18	25.00 (LE)	RM&LE
11	Kopili, NEEPCO	2x50	50.22	50.92	-	R&M & Refurbishment of Units 1 & 2
Karnataka						
12	Supa, KPCL	2x50	3.45	3.88	-	R&M
13	Sharavathy (Ph B), KPCL	10x103.5	20	29.27	-	R&M
Uttarakhand						
14	Pathri, UJVNL	3x6.8	113.25	109.04	20.40 (LE)	RM&LE
15	Khatima, UJVNL	3x13.8	256.77	116.97	41.40 (LE)	RM&LE
Jammu & Kashmir						
16	Lower Jhelum, J&KSPDC	3x35	101.30	96.10	15.00 (Res.)	R&M+ Res.
17	Sumbal Sindh, J&KSPDC	2x11.3	25.00	24.60	-	R&M
Uttar Pradesh						
18	Matatila, UPJVNL	3x10.2	10.29	7.21	30.6 (LE)	RM&LE

Tamil Nadu						
19	Periyar, TANGEDCO	4x35	161.18	133.68	140 (LE) + 28.00(U)	RMU&LE
West Bengal						
20	Jaldhaka St.I, WBSEDCL	3x9	88.62	79.97	27 (LE)	RM&LE
Ongoing Schemes						
Jammu & Kashmir						
21	Ganderbal, J&KSPDC	2x3+2x4.5	39.30	10.37	9.00 (LE)	RM&LE
22	Chennai, J&KSPDC	5x4.66	39.14	14.66	23.30 (LE)	RM&LE
Karnataka						
23	Bhadra River Bed units, KPCL	2x12	28.015	24.21	-	R&M

Abbreviations: R&M – Renovation & Modernisation;. U – Uprating; LE – Life Extension;
Res – Restoration; MW – Mega Watt; CS-Central Sector: SS- State Sector

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2721
ANSWERED ON 01.12.2016

COOPERATION WITH SWEEDEN IN THE FIELD OF ENERGY

2721. SHRI PARVESH SAHIB SINGH:

Will the Minister of POWER
be pleased to state:

- (a) whether India and Sweeden have recently agreed to enhance cooperation in the energy sector during a recent visit by him to that country, if so, the details thereof;
- (b) the specific areas in which the cooperation between the countries is aimed at;
- (c) the benefits likely to be accrued to the country as a result of this collaboration;
- (d) whether there are any other existing agreements with Sweeden on the subject of energy; and
- (e) if so, the details thereof?

A N S W E R

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

(SHRI PIYUSH GOYAL)

(a) : During the recent official visit to Sweden, our Government invited Swedish companies to partner with Indian companies and to make cost competitive products for the Indian consumer in India.

(b) : Diverse areas of cooperation spanning, inter-alia, waste-to-energy; energy efficiency; grid integration of renewables; electro-mobility; smart Grids; smart metering; solar energy; water treatment; and efficient mining were discussed.

(c) : The Government aims to promote new technology for clean energy, waste to energy, enhancing energy efficiency, energy efficient mining, mine automation and optimization and to promote investment in renewable energy.

(d) & (e) : A Memorandum of Understanding (MoU) on Cooperation in the field of Renewable Energy has been signed with Sweden in April 2010 to promote bilateral cooperation between the two countries towards development of bilateral clean and renewable energy sources. The MoU envisages joint development of activities for promotion of New and Renewable Energy.

GOVERNMENT OF INDIA
MINISTRY OF POWER

LOK SABHA
UNSTARRED QUESTION NO.2752
ANSWERED ON 01.12.2016

GAS BASED POWER GENERATION

2752. SHRI DEVUSINH CHAUHAN:
SHRI RAJESHBHAI CHUDASAMA:

Will the Minister of POWER
be pleased to state:

- (a) whether the Union Government has received a proposal from the Government of Gujarat to provide Rs. 1.50 per unit subsidy for gas based power generation in line with fertilizer sector to support additional 9500 MW gas based generation (at 80% level) in the country;
- (b) if so, the action taken by the Union Government in this regard as gas based installed capacity is 22962 MW and operational capacity is around 6000 MW only;
- (c) whether the Government is seriously thinking to utilise idle gas capacity to set up gas based power plants for clean energy;
- (d) if so, the details thereof and the action plan chalked out by the Government thereon; and
- (e) whether any subsidy has also been planned to encourage the state/private sector to invest in gas based power plants 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) : Government of India has sanctioned a scheme for importing spot Re-gasified Liquefied Natural Gas (RLNG) in 2015-16 and 2016-17 for the stranded gas based power plants as well as for plants receiving domestic gas upto the target Plant Load Factor (PLF) selected through a reverse e-bidding process. The scheme provides for financial support from PSDF (Power System Development Fund). The scheme envisages sacrifices to be made collectively by all stakeholders, including the Central and State Governments by way of exemptions from applicable taxes and levies/duties on the incremental RLNG being imported for the purposes. 3 Phases of auction of e-bid RLNG have been completed so far and 4th Phase is presently under operation from 1st October, 2016 to 31st March, 2017. Under the 4th Phase, Power System Development Fund (PSDF) support ranging from Rs 0.21 per unit to Rs 0.22 per unit has been secured by the successful bidders in the reverse auction.
