26

STANDING COMMITTEE ON ENERGY

(2017-18)

SIXTEENTH LOK SABHA

MINISTRY OF POWER

DEMANDS FOR GRANTS
2017-18

TWENTY SIXTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

March, 2017/Phalguna, 1938 (Saka)

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Presented to Lok Sabha on 10.03.2017

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CONTENTS

Page No.

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(2016-17)

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3.	Shri N.K. Pandey	Director
4.	Shri Manish Kumar	Senior Executive Assistant

INTRODUCTION

I, the Chairperson, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this Twenty Sixth Report on Demands for Grants of the Ministry of Power for the year 2017-18.

2. The Committee took oral evidence of the representatives of the Ministry of Power on 15th February, 2017. The Committee wish to express their thanks to the representatives of the Ministry for appearing before the Committee for evidence and furnishing the information desired by the Committee in connection with the issues relating to the subject.

3. The Report was considered and adopted by the Committee at their sitting held on 2nd March, 2017.

4. The Committee place on record their appreciation of the assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

5. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in Part-II of the Report.

NEW DELHI
9th March, 2017
Phalguna 18, 1938 (Saka)

DR. VIRENDRA KUMAR
Chairman,
Standing Committee on Energy

REPORT

PART-I

NARRATION ANALYSIS

I. INTRODUCTORY

1.1 Electricity is the key to socio-economic development of a country. There exists a correlation between power consumption and industrial and overall economic growth of a country. Reliable, uninterrupted and cheaper power can provide boost to the economy. The Indian Power Sector has come a long way from a installed generation capacity of meager 1,713 MW in the year 1950 to 3,14,642 MW at present. Due to advent of Private Players in the Power Sector, the country has witnessed massive addition in power generation capacity. Due to this our country which always been a energy starved country, have entered into era of power sufficiency. 175 GW of renewable energy, which is envisaged to be added by the year 2022, will take the nation to the next level, wherein, the energy requirements are not only fully met but global emission commitments are also taken care of. Electricity access to all households and 24x7 electricity supply which so far remained a distant dream will now be a reality in coming years. However, our power sector still has some issue that warrants urgent attention and suitable interventions. First, even massive capacity addition and ease in coal supply and its prices, have failed to bring down electricity tariff on sustainable basis. Secondly, Distribution Sector, the most crucial link in power market, is also the most distressed one with huge accumulative losses. Another important problem that need the attention is hydro power sector which has not been given the due attention so far despite the

fact that it is not only clean energy but also required as balancing power in the wake of huge upcoming renewable energy in the power system.

1.2 The Ministry of Power is primarily responsible for the development of electrical energy in the country. The Ministry's responsibility *inter-alia* includes perspective planning, policy formulation, processing of projects for investment decision, monitoring of the implementation of power projects, training and manpower development and the administration and enactment of legislation in regard to thermal, hydro power generation, transmission and distribution.

1.3 The main items of work dealt with by the Ministry of Power are as given below:

- General Policy in the electric power sector and issues relating to energy policy and coordination thereof. (Details of short, medium and long-term policies in terms of formulation, acceptance, implementation and review of such policies, cutting across sectors, fuels, regions and intra-country and inter-country flows);
- All matters relating to hydro-electric power (except small/mini/micro hydel projects of and below 25 MW capacity), thermal power and transmission & distribution system network;
- Research, development and technical assistance relating to hydro-electric and thermal power, transmission system network and distribution systems in the States/UTs;
- Administration of the Electricity Act, 2003, (36 of 2003), the Energy Conservation Act, 2001 (52 of 2001), the Damodar Valley Corporation Act, 1948 (14 of 1948) and the Bhakra Beas Management Board as provided in the Punjab Reorganisation Act, 1966 (31 of 1966)

- All matters relating to the Central Electricity Authority, Appellate Tribunal for Electricity and Central Electricity Regulatory Commission;
- Rural Electrification;
- Power schemes and issues relating to power supply/development schemes/programmes/decentralized and distributed generation in the States and Union Territories;
- Matters relating to the following Undertakings/Organizations:
    (a) Damodar Valley Corporation (DVC)
    (b) Bhakra Beas Management Board (except matters relating to irrigation);
    (c) NTPC Limited;
    (d) NHPC Limited;
    (e) Rural Electrification Corporation Limited (REC);
    (f) North Eastern Electric Power Corporation Limited (NEEPCO);
    (g) Power Grid Corporation of India Limited (PGCIL);
    (h) Power Finance Corporation Limited (PFC);
    (i) THDC India Limited;
    (j) SJVN Limited;
    (k) Central Power Research Institute (CPRI);
    (l) National Power Training Institute (NPTI); and
    (m) Bureau of Energy Efficiency(BEE).
- All matters concerning energy conservation and energy efficiency pertaining to the Power Sector.

1.4 In all technical and economic matters, the Ministry of Power is assisted by the Central Electricity Authority (CEA). While the Authority (CEA) is a Statutory Body constituted under section 3 of the repealed Electricity (Supply) Act, 1948 and continued under section 70 of the Electricity Act, 2003, where similar provisions exist, the office of the CEA is an "Attached

Office" of the Ministry of Power. The CEA is responsible for technical coordination and supervision of programmes and is entrusted with a number of statutory functions. The CEA is headed by a Chairperson, who is also ex-officio Secretary to the Government of India, and comprises six full time Members of the rank of Ex-officio Additional Secretaries to the Government of India. They are designated as Member (Thermal), Member (Hydro), Member (Economic & Commercial), Member (Power System), Member (Planning) and Member (Grid Operation and Distribution). 14 subordinate offices are functioning under the control of the Central Electricity Authority. The Ministry of Power has a monitoring system for capacity addition programmes for timely execution of the cleared projects. The monitoring mechanism operates at 3 broad levels, *viz.* by the Central Electricity Authority, by the Ministry of Power and through the Power Project Monitoring Panel (PPMP).

1.5 The National Electricity Policy, which has been evolved in consultation with and taking into account the views of the State Governments, the Central Electricity Authority (CEA), the Central Electricity Regulatory Commission (CERC) and other stakeholders, aims at laying guidelines for accelerated development of the power sector, providing supply of electricity to all areas and protecting the interests of consumers and other stakeholders, keeping in view the availability of energy resources, technology available to exploit these resources, economics of generation using different resources, and energy security issues. The National Electricity Policy (2005) aimed at achieving the following objectives:

- Access to Electricity - Available for all households in the next five years.
- Availability of Power - Demand to be fully met by 2012. Energy and peaking shortages to be overcome and adequate spinning reserve to be available.

- Supply of Reliable and Quality Power of specified standards in an efficient manner and at reasonable rates.
- Per capita availability of electricity to be increased to over 1000 units by 2012.
- Minimum lifeline consumption of 1 unit/household/day as a merit good by the year 2012.
- Financial Turnaround and Commercial Viability of Electricity Sector.
- Protection of consumers' interests.

II. ANALYSIS OF DEMANDS FOR GRANTS (2016-17)

2.1 The Minister of State for Power laid on the Table of the Lok Sabha, the detailed Demands for Grants (2017-18) for the Ministry of Power on 9th February, 2017. The Demands show a budgetary provision of GBS of Rs. 13,881.14 crore. The Central Plan Outlay, including IEBR, i.e. Rs. 61,880.92 crore, however, stands at Rs. 75,762.06 crore. The Head-wise Demands for Grants of the Ministry are given as per **Annexure-I**. The Programmes and Schemes of the Ministry within the financial provisions made under the Demands are briefly as under:

1. Secretariat:.. Provision is made for expenditure on establishment matters of the Secretariat of the Ministry of Power..

2.01. Central Electricity Authority:.. The Central Electricity Authority (CEA) as a statutory organization is responsible for overall power sector planning, coordination, according concurrence to hydroelectric schemes, promoting and assisting the timely completion of projects, specifying technical standards and safety requirements, Grid Standards and conditions for installation of meters applicable to the Power Sector of the country.

2.02. Setting up of JERC for UTs and Goa:.. The Central Government has set up a Joint Electricity Regulatory Commission (JERC) for Goa and all Union Territories except Delhi. Expenditure of the Joint Commission is borne by the Central Government and the Government of Goa in the ratio of 6:1.

2.03. Appellate Tribunal for Electricity:.. Under the provisions of Electricity Act, 2003, the Central Government has set up the Appellate Tribunal for Electricity. It hears appeals against the orders of the adjudicating officer or the Appropriate Commissions under the Electricity Act, 2003. Under the provisions of the Petroleum and Natural Gas Regulatory Board Act, 2006, APTEL is the Appellate Tribunal for the purpose of that Act.

2.04. Forum of Regulators (FOR):.. The provision is for capacity-building and availing consultancy services.

3.01. Energy Conservation:.. The funds would be utilized for (i) carrying out awareness creation on Energy Conservation through print, electronic and other media for general public, (ii) Continuation of EC awards and painting competition on Energy Conservation, (iii) implementation of the National Mission for Enhanced Energy Efficiency (NMEEE) and (iv) the upscaling of the efforts to create and sustain market for energy efficiency to unlock investments.

4. Deen Dayal Upadhyaya Gram Jyoti Yojana:.. Deendayal Upadhyaya Gram Jyoti Yojna (DDUGJY)has the following objectives : (a) to separate agriculture and non-agriculture feeders to facilitate Discoms in the judicious rostering of supply to agricultural & non-agricultural consumers (b) strengthen and augment sub-transmission & Distribution infrastructure in rural areas and (c) Rural electrification. The scope of works covered under the scheme are Feeder separation, creation of new sub-stations, provision of micro-grid and off-grid distribution network, HT/LT lines, augmentation of sub-stations and metering at all levels. Under the scheme, Govt. of India is providing financial support in the form of grants to the Discoms for implementation of the scheme. All DisComs including Private Sector Discoms are eligible for availing financial support under the scheme. The erstwhile Rajiv Gandhi Gramin Vidutikaran Yojna (RGGVY) has been subsumed in DDUGJY as its Rural Electrification component.

5.01. IPDS-Grant:.. The objective of the scheme is 24x7 power supply for consumers, reduction of AT&C losses and providing access to all households. The scheme has three major components namely improvement of sub-transmission and distribution system in urban areas, metering & IT enablement in distribution sector under ongoing Restructured-Accelerated Power Development Reform Programme (RAPDRP) scheme, which has been subsumed under Integrated Power Development Scheme (IPDS). R-APDRP has two major components: Part-A includes projects for establishment of information technology-based energy accounting and audit system leading to finalization of verifiable base-line AT&C loss levels in the project areas; Part-B envisages distribution network strengthening investments leading to reduction in loss level. The scheme has both Grant and loan components.

6.01. Smart Grids:.. The scheme envisages setting up of an institutional mechanism by launching 'National Smart Grid Mission' which would serve the need of an electrical grid with automation, communication and IT systems that can monitor power flows from points of generation to points of consumption and ensure control of power flow or curtailment of loads matching generation on real time basis.

6.02. Green Energy Corridors:.. The scheme is proposed for maximization of renewable energy generation and integration with the main grid without compromising on the security and stability of power system.

6.03. Interest Subsidy to National Electricity Fund:.. The National Electricity Fund (NEF) is being set up to provide interest subsidy on loans to be disbursed to the Distribution Companies (DISCOMS) both in the Public and Private Sector, to improve the distribution network for areas not covered by RGGVY and R-APDRP scheme (since subsumed in DDUGJY and IPDS respectively) Project areas.

6.05. Power System Operation Company (POSOCO):.. The provision is for POSOCO setup as an Independent Government Company under the Ministry of Power by acquiring the shares currently held by PGCIL in POSOCO.

6.06. 220 kV Transmission line from Srinagar to Leh via Kargil:.. The provision is for construction of 220kV Transmission System from Alusteng (Srinagar) to Leh (via Drass, Kargil & Khalsti 220/66 PGCIL substations) and 66 PGCIL interconnection system for Drass, Kargil, Khalsti and Leh sub-stations in Jammu & Kashmir (J&K).

6.07. Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim (Program Component):.. The project is for Power System Improvement in six NER states viz. Assam, Manipur, Meghalaya, Mizoram, Tripura and Nagaland. It is funded by the World Bank. Intra-State Transmission & Distribution projects for Sikkim & Arunachal Pradesh have been segregated for implementation through budgetary support from Government of India in view of these States having sensitive borders.

6.09. Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim:..A comprehensive scheme for strengthening of transmission, sub-

transmission and distribution system in the entire NER including Sikkim has been conceptualized.

6.12. Jammu and Kashmir-price escalation PMRP 2004 relating to transmission and distribution network:.. It is part of Prime Minister development package (2015) , The project has been identified for completion of projects relating to transmission and distribution network approved under Prime Minister Restructuring Package (PMRP2004)

7.01. Transfer to Power System Development Fund (PSDF):.. The scheme envisages (a) strengthening of existing distribution and transmission infrastructure by part-funding through Grants.(Non-Gas component) (b) Provision for subsidy to DISCOMS purchasing electricity from stranded Gas based Power Plants (Gas component).

8.01. Central Power Research Institute:.. Central Power Research Institute, Bengaluru serves as a National Laboratory for applied research in the field of electrical power and also functions as an independent authority for testing, evaluation and certification of electrical equipment and components.

8.02. National Power Training Institute:.. National Power Training Institute is engaged in imparting training in various aspects of power sector including operation and maintenance of power stations.

9.01. Bureau of Energy Efficiency (Program Component):.. Funds are provided to Bureau of Energy Efficiency (BEE) for implementation of various energy efficiency initiatives in the areas of household lighting, commercial buildings, Standards & Labeling appliances, Demand Side Management in Agriculture or Municipalities, SMEs and large industries including the initiation of the process for development of Energy Consumption norms for industrial sub-sectors, capacity building of SDAs, DISCOMS etc.

10.01. National Hydro Electric Power Corporation Ltd:..NHPC was set up in 1975 under Companies Act, 1956, with a view to securing speedy, efficient and economical execution and operation of Hydro-Electric projects in the Central Sector. NHPC is a schedule A (Mini Ratna) Enterprise of the Government of India. The Capital Outlay is for meeting in part the need for funds for Chutak HEP/ Nimoo Bazjo.

10.02. Tehri Development Corporation (THDC):..THDC India Limited is a Joint Venture of Govt. of India and Govt. of Uttar Pradesh. The equity is shared between GoI and GoUP in the ratio of 3:1. The company was incorporated in July, 1988 to develop, operate and maintain the 2400 MW Tehri Hydro Power Complex and other hydro projects in the Bhagirathi valley. The Capital outlay is for meeting in part the expenditure on VishnuGadh Pipal Koti HEP.

10.04. North Eastern Electric Power Corporation (NEEPCO):.. The North Eastern Electric Power Corporation Limited (NEEPCO), a Schedule A Mini Ratna company under Ministry of Power, set up on 2nd April, 1976, carries the objective of developing the power potential in India and abroad with special emphasis on the NE Region of the country through planned development and commissioning of power projects, which in turn would promote the overall development of the country and NE region in particular. The capital outlay is for meeting part of the expenditure on Kameng HEP as per the requirement.

10.06. Central Assistance for Pakul Dul HEP under J and K PMDP 2015 as grant to Chenab Valley Power Projects Private Limited (CVPPPL):.. It is part of Prime Minister development package (2015), the assistance is for the Pakul Dul HEP implemented through joint venture with Chenab Valley Power project Pvt limited.

10.07. GoI fully serviced bond issue expenditure and interest (PFC bonds):.. The allocation is required for expenses and on the issue of Bonds, interest payable on infrastructure bonds raise by Power Finance Corporation (PFC).

III. ANNUAL PLAN OUTLAY

3.1 During the Regular Budget of 2017-18, the Ministry of Power sought an outlay Rs. 22,767.39 crore (GBS component). However, the Ministry of Finance has approved an allocation of Rs. 13,881.14 crore only. The total outlay for the year 2017-18 is Rs. 75,762.06 crore comprising IEBR of Rs. 61,880.92 crore and GBS of Rs. 13,881.14 crore. Details of the GBS components as sought by the Ministry of Power are as given in the table below:

Ministry of Power

	BE 2017-18		Total
	Revenue	Capital	
1	2	3	4
I. Establishment expenditure			
Secretariat-Social Services	44.12	0.00	44.12
Central Electricity Authority	96.54	3.50	100.04
Appellate Tribunal for Electricity	14.43	0.00	14.43
CERC	57.00	0.00	57.00
Amount met from CERC	-57.00	0.00	-57.00
Net	0.00	0.00	0.00
JERC for Goa and UT	8.60	0.00	8.60
JERC for Manipur and Mizoram	0.01	0.00	0.00
Forum of Regulators	1.00	0.00	1.00
Total –I	**164.70**	**3.50**	**168.20**
II. Central Sector Schemes/Projects			
Energy Conservation	332.86	0.00	332.86
Deen Dayal Upadhyaya Gram Jyoti Yojna			
Rural Electrification and Feeder Separation	0.00	0.00	0.00
Provision for North East and Sikkim	0.00	0.00	0.00
Total-Deen Dayal Upadhyaya Gram Jyoti Yojna	12602.00	0.00	12602.00
Integrated Power Development Scheme			
IPDS-Grant	2860.11	0.00	2860.11
IPDS Loans	0.00	2950.00	2950.00
Provision for North East and Sikkim	50.00	150.00	200.00
Total-Integrated Power Development Scheme	2910.11	3100.00	6010.11
Strengthening of Power Systems			
Smart Grid	180.00	0.00	180.00
Green Energy Corridor	0.00	0.10	0.10
Interest Subsidy to National Electricity Fund	100.00	0.00	100.00

Financial Support for Debt Restructuring of DISCOMs	0.01	0.00	0.01
Power System Operation Company (POSOCO)	0.00	0.00	0.00
220 KV Transmission Line from Srinagar to Leh via Kargil	0.00	250.00	250.00
Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim			
Programme Component	124.00	0.00	124.00
EAP Component	110.00	0.00	110.00
Total-Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim	234.00	0.00	234.00
Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	273.00	0.00	273.00
Funds for Evaluation Studies and Consultancy	0.01	0.00	0.01
Comprehensive Award Scheme for Power Sector	0.54	0.00	0.54
Total-Strengthening of Power Systems	787.56	250.10	1037.66
Power System Development Fund (PSDF)			
Transfer to Power System Development Fund (PSDF)	750.00	0.00	750.00
Scheme for Power System Development to be met from PSDF	400.00	0.00	400.00
Power System Development Fund (PSDF) and Utilisation of Gas based Generation Capacity	350.00	0.00	350.00
Less-Amount met from Power System Development Fund	-750.00	0.00	-750.00
Total-Power System Development Fund (PSDF)	750.00	0.00	750.00
Total -II	**17382.53**	**3350.10**	**20732.63**
III. Other Central Expenditure			
National Hydro Electric Power Corporation Ltd.	0.00	367.00	367.00
Central assistance for PakulDul HEP under J&K PMDP 2015 as grant to Chenab Valley power projects pvt limited (CVPPPL)	502.00	0.00	502.00
NTPC			
Acquisition of Coal bearing areas for NTPC	0.00	122.72	122.72
Deduct Recoveries	0.00	-122.72	-122.72
Net	0.00	0.00	0.00
Tehri Hydro Development Corporation (THDC)	0.00	40.00	40.00
Damodar Valley Corporation Ltd.	0.00	0.00	0.00
North Eastern Electric Power Corporation (NEEPCO)	0.00	166.13	166.13
Central Power Research Institute (CPRI), Bengaluru	250.00	0.00	250.00
National Power Training Institute (NPTI)	85.40	0.00	85.40

Bureau of Energy Efficiency			
Programme Component	101.03	0.00	101.03
EAP Component	5.00	0.00	5.00
Total-Bureau of Energy Efficiency	106.03	0.00	106.03
GoI fully service bond- issue expenditure and interest (PFC Bonds)	350.00	0.00	350.00
Total-Other Central Expenditure	1293.43	573.13	1866.56
Grand Total	**18840.66**	**3926.73**	**22767.39**

3.2 The details of the GBS components as approved by the Ministry of Finance

Gross Budgetary Support (GBS)				*(In crores)*
		Budget 2017-2018		
		Revenue	Capital	Total
Establishment Expenditure of the Centre				
1	Secretariat	40.35	0.00	40.35
2	Statutory Authorities			
2.1	Central Electricity Authority	115.91	1.23	117.14
2.2	Setting up of Joint Electricity Regulatory Commission (JERC) for UTs and Goa	7.19	0.00	7.19
2.3	Appellate Tribunal for Electricity	12.05	0.00	12.05
2.4	Central Electricity Regulatory Commission (CERC) Fund	57.00	0.00	57.00
	Less- Amount met from CERC Fund	-57.00	0.00	-57.00
	Total- Statutory Authorities	*135.15*	*1.23*	*136.38*
Total-Establishment Expenditure of the Centre		**175.50**	**1.23**	**176.73**
Central Sector Schemes/Projects				
Conservation and Energy Efficiency				
3	Energy Conservation Schemes			
3.01	Energy Conservation	50.54	0.00	50.54
Deen Dayal Upadhyaya Gram Jyoti Yojna				
4	Deen Dayal Upadhyaya Gram Jyoti Yojna	4814.00	0.00	4814.00
Integrated Power Development Scheme				
5	*Integrated Power Development Scheme*			
5.01	IPDS-Grant	3321.22	0.00	3321.22
5.02	IPDS-Loans	0.00	2500.00	2500.00
	Total- Integrated Power Development Scheme	*3321.22*	*2500.00*	*5821.22*
Strengthening of Power Systems				
6	Strengthening of Power Systems			
6.01	Smart Grids	30.00	0.00	30.00
6.02	Green Energy Corridors	0.00	75.00	75.00
6.03	Interest Subsidy to National Electricity Fund	10.00	0.00	10.00
6.04	Power System Operation Company (POSOCO)	0.00	40.00	40.00

6.05	220 kV Transmission line from Srinagar to Leh via Kargil	0.00	250.00	250.00
6.06	Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim	179.00	0.00	179.00
6.07	Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	193.00	0.00	193.00
6.08	Jammu and Kashmir-price escalation Prime Minister's Reconstruction Package (PMRP) 2004 relating to transmission and distribution network	65.00	0.00	65.00
	Net	*477.00*	*365.00*	*842.00*
7	*Power System Development Fund*	750.00	0.00	750.00
Total-Central Sector Schemes/Projects		**9412.76**	**2865.00**	**12277.76**
Other Central Sector Expenditure				
Autonomous Bodies				
8	*Training and Research*			
8.01	Central Power Research Institute	150.00	0.00	150.00
8.02	National Power Training Institute	57.20	0.00	57.20
	Total- Training and Research	*207.20*	*0.00*	*207.20*
9	*Conservation and Energy Efficiency*			
9.01	Bureau of Energy Efficiency (Program Component)	49.00	0.00	49.00
9.02	Bureau of Energy Efficiency (EAP Component)	1.00	0.00	1.00
	Total- Conservation and Energy Efficiency	*50.00*	*0.00*	*50.00*
Total-Autonomous Bodies		**257.20**	**0.00**	**257.20**
Public Sector Undertakings				
10	Assistance to CPSUs			
10.01	National Hydro Electric Power Corporation Ltd	0.00	400.00	400.00
10.02	Tehri Development Corporation (THDC)	0.00	52.00	52.00
10.03	Damodar Valley Corporation	0.00	0.00	0.00
10.04	North Eastern Electric Power Corporation (NEEPCO)	0.00	267.45	267.45
10.05	Central Assistance for PakulDul HEP under J and K PMDP 2015 as grant to Chenab Valley Power Projects Private Limited (CVPPPL)	100.00	0.00	100.00
10.06	GoI fully serviced bond issue expenditure and interest (PFC bonds)	350.00	0.00	350.00
	Total- Assistance to CPSUs	*450.00*	*719.45*	*1169.45*
11	*Acquisition of Coal bearing areas for NTPC*			
11.01	Acquisition of coal bearing areas	0.00	122.72	122.72
11.02	Less Recoveries	0.00	-122.72	-122.72
	Net	*0.00*	*0.00*	*0.00*
Total-Public Sector Undertakings		**450.00**	**719.45**	**1169.45**
Total-Other Central Sector Expenditure		**707.20**	**719.45**	**1426.65**
Grand Total		***10295.46***	***3585.68***	***13881.14***

3.3 The details of **Internal & Extra Budgetary Resources (I&EBR) for the year 2017-18 as given below:**

S.No	Name of PSU	(Rs in crore)
1	National Thermal Power Corporation Limited	28000.00
2	National Hydro Electric Power Corporation Limited	2689.36
3	Damodar Valley Corporation Limited	2167.15
4	North Eastern Electric Power Corporation Limited	1293.80
5	SatlujJalVidyut Nigam Limited	1068.00
6	Tehri Hydro Development Corporation Limited	1662.61
7	Power Grid Corporation of India Limited	25000.00
	Total	**61880.92**

3.4 During the Budget 2016-17, the Ministry of Power had sought and outlay of 31,519.84 crore (GBS component). However, the Ministry of Finance approved an allocation of Rs. 12,200 crore only. Against this allocation, the RE 2016-17 was reduced to Rs. 10,413.66 crore due to reduced allocation under IPDS and PSDF. The actual expenditure as on 31.01.2017 is Rs7259.32 crore which is 59.50% of BE and 69.71% of RE.

3.5 The Committee were informed that the internal accruals out of operations (of CPSUs) and borrowings (both domestic and foreign) constitute IEBR. The capex plan of CPSUs (for generation/transmission projects) is funded substantially through I&EBR. In fact, the budgetary support (to capex plan) is provided only to Hydel PSUs (NHPC, THDC and NEEPCO), that too, on a limited scale. The expenditure under IEBR is not routed through government budget/demand for grant. It is managed by the Board of the respective PSUs.

3.6 It was further informed that the GBS, on the other hand, is the gross budgetary support/demand for grant provided from out of the Consolidated Fund of India for implementation of various schemes of the Ministry, forming part of the Five Year Plan/Annual Plans. The expenditure under GBS is routed through the Ministry's budget.

3.7 The Secretary, Power summarized the provisions under Demands for Grants 2017-18 as under:

"The total outlay that we are seeking is Rs.75,762 crore, which has a IEBR component of Rs.61,881 crore and GBS of Rs.13,881 crore. The GBS is one of the highest in the last ten years. The Deendayal Upadhyaya Gram Jyoti Yojana and IPDS are the two flagship schemes of the Ministry. Out of the total GBS of Rs.13,881 crore, the Deen Dayal Upadhyaya Gram Jyoti Yojana has Rs.4,814 crore and IPDS has Rs.5,821 crore. They both constitute about 77 per cent of the total GBS. So, out of Rs.13,881 crore GBS, GBS of Rs.10,635 crore is for these two schemes. They are the major schemes. We have also got a few other schemes. There is a provision of Rs.750 crore for PSDF scheme and Rs.400 crore for NHPC. These are all small schemes.

3.8 When the Committee desired to know whether the provisions made are sufficient, the Secretary, Power deposed before the Committee as under:

"Basically, the two major schemes that we have talked about have been implemented and the amount that has been recommended in the Budget by the hon. Finance Minister is sufficient for us in the current year, that is, 2017-18. In the current year, our expenditure against the provision also has been good. We did start slowly as far as the implementation of the schemes is concerned, but the pace has now been picked up. In the current year, we will be utilising the grants fully and whatever provision has been made in the next year is sufficient and we will be able to use it also."

3.9 The utilization of Gross Budgetary Support during the 11th and the 12th Plans so far against the Budget Estimate is shown below:

(Rs. in crore)

SL. No.	Year	BE			RE			Actual		
		Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
1.	2007-08	5483.00	411.19	5894.19	4350.00	404.53	4754.53	4308.93	235.24	4524.83
2.	2008-09	6000.00	395.76	6395.76	6100.00	271.51	6371.50	6044.86	196.05	6246.02
3.	2009-10	9230.00	276.73	9506.73	6814.00	216.80	7030.80	6710.45	208.74	6920.72
4.	2010-11	10630.00	133.58	10763.58	8725.22	114.69	8839.91	8494.23	107.36	8709.16
5.	2011-12	9642.00	137.68	9779.68	6051.00	131.34	6182.34	4699.36	127.37	4827.35
6.	2012-13	9642.00	133.77	9775.77	4708.00	410.86	7901.93	2535.59	3526.88	6063.59
7.	2013-14	9642.00	671.70	10313.7	5000.0	410.86	5410.86	4529.72	650.81	5180.53

					0					
8.	2014-15	9642.00	126.50	9768.5	5700.00	126.63	5598.00	5590.21	120.08	4999.59
9.	2015-16	6799.74	134.76	6934.50	8084.37	129.30	8213.67	7826.84	127.80	7954.64

3.10 The actual utilization of Plan outlay since the year 2007-08 as against the Budget Estimates is shown below:

Year	**BE (Rs. in crore)**	**RE (Rs. in crore)**	**Actual Utilization (Rs.in crore)**	**% of Budget Estimate**
2007-08	33,153.26	30,690.38	25,887.63	78.08%
2008-09	40,460.10	36,306.47	37,656.00	93.07%
2009-10	53,126.27	45,269.60	39,884.23	75.07%
2010-11	60,751.42	45,668.03	43,144.16	71.02%
2011-12	66,382.73	62,791.73	46,083.87	69.42%
2012-13	62,424.50	54,696.01	51221.47	84.86%
2013-14	59,329.41	53,962.89	57956.18	95.65%
2014-15	60,384.02	55,488.18	65,270.21	108.09%
2015-16	61,404.47	66,369.56	63,642.67	103.64%

3.11 The Ministry of Finance (MoF) have issued instructions to the effect that expenditure during the financial year be evenly spread through Monthly Expenditure Plan (MEP). The instructions *inter-alia* provide that the expenditure in the last quarter should not be more than 33% of the budget and also not more than 15% during the month of March of a financial year. The Ministry have stated that these instructions have largely been complied with The Plan & Non-Plan quarterwise utilization of the budget allocations for the last three years is given below:

Plan					(Rs in crore)	
FY (Allocation in BE)		**Qtr 1**	**Qtr 2**	**Qtr 3**	**Qtr 4**	**Total**
2012-13 (9642.00)	**Actuals**	268.92	1431.92	250.01	585.86	2536.71
	Percentage	2.79	14.85	2.59	6.08	26.31
2013-14 (9642.00)	**Actuals**	1761.7	834.41	1285.62	647.99	4529.72
	Percentage	18.27	8.65	13.33	6.72	46.98
2014-15 (9642.00)	**Actuals**	101.16	3082.23	1438.87	967.95*	5590.21

	Percentage	1.05	31.97	14.92	10.04	57.98
2015-16 (6799.74)	**Actuals**	1522.92	2269.01	2411.88	1623.03	7826.84
	Percentage	22.40	33.37	35.47	23.87	115.10
2016-17 (12200.00)	**Actuals**	2544.31	2934.01	1464.65		
	Percentage	20.86	24.05	12.01		

* This does not include Rs 7725.77 crore as loan (Bonus Debentures) to NTPC

Non-Plan (Rs in crore)

FY (Allocation in BE)		**Qtr 1**	**Qtr 2**	**Qtr 3**	**Qtr 4**	Total
2012-13 (133.77)*	**Actuals**	30.34	26.33	24.44	3445.77	3526.88
	Percentage	22.68	19.68	18.27	2575.89	2636.53
2013-14 (671.70)**	**Actuals**	31.53	561.9	28.43	28.95	650.81
	Percentage	4.69	83.65	4.23	4.31	96.89
2014-15 (126.50)	**Actuals**	35.44	32.55	29.41	22.68	120.08
	Percentage	28.02	25.73	23.25	17.92	94.92
2015-16 (134.76)	**Actuals**	35.49	36.77	32.57	22.97	127.80
	Percentage	26.34	27.29	24.17	17.05	94.84
2016-17 (150.99)	**Actuals**	38.92	50.93	35.92		
	Percentage	25.78	33.73	23.79		

***The last column in Non-plan actual for 2012-13 is including Rs 3326.39 crore for payment of DESU Dues for GNCT of Delhi and Rs 90.21 crore for waiver of interest of NEEPCO

** The Non-plan expenditure includes a one-time payment of Rs 536.30 crore for LahoriNagpala HEP in second quarter.

3.12 When the Committee asked the reasons for deviation in quarterly spending, the Ministry replied as under:

> "The Non Plan Expenditure in the Qtr4 for 2012-13 includes one-time settlement of Rs. 3326.39 crore for payment of DESU Dues to GNCT of Delhi and Rs 90.21 crore for waiver of interest of NEEPCO. A supplementary grant was sanctioned with the approval of the Parliament in the last quarter to provide loan to Govt of NCT of Delhi. The significantly high spending during Q2 (Non Plan 2013-14) is due to fact that the expenditure for the said quarter includes a one-time payment of Rs 536.30 crore for Lahori-Nagpala HEP which was released in the second quarter after completion of due diligence process. The significant rise in Plan expenditure during 2nd Quarter of 2014-15 is because of accumulation of the releases due under the flagship schemes erstwhile RAPDRP and erstwhile RGGVY in 1st Quarter due to declaration of Model Code of Conduct consequent upon the declaration of Lok Sabha general elections. In general, the progress of expenditure/release of Plan funds is

dependent on the number of factors such as the time of receipt of mature proposals for release of funds, availability of utilization certificates which are due for the funds released in the past, position regarding unspent balances at the time of receipt of proposals, completion of the process of appraisal and approval of investment proposals. These have been the major factors for variation in the expenditure across different quarters".

3.13 When the Committee desired to know the heads which showed shortfalls or excess expenditure during the year 2016-17, the Ministry, in their written reply, have furnished the following information:

"The budgetary allocation of the Ministry of Power for 2016-17 was Rs12200 crore against which the actual expenditure was Rs7259.32 crore as on 31.01.2017. The Major Heads which showed shortfalls or excess expenditure in 2016-17 and the reasons for improper utilization against the allocation in the heads are given as under:-

Sl No	Name of Scheme	2016-17			
		BE	RE	Actual as on 31.01.17	Reasons for shortfall of excess in expenditure
	1	2	3	4	5
1	NEEPCO	166.13	55.38	0.00	RCE approval pending.
2	CPRI	125.00	65.79	60.91	Due to previous years unspent balance the allocation has been reduced in RE stage.
3	EC including NMEEE	100.00	50.62	23.70	The demand from state implementing agencies for funds has not been as per expectations and there were unspent balances from out of earlier releases.
4	BEE	64.00	60.63	54.15	
5	Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	273.00	255.26	0.00	The off take of funds could not happen due to delay in tendering including retendering and consequent delay in award of contracts.
6	Power System Improvement Project in NE Region (Except Sikkim & Arunachal Pradesh)	234.00	78.00	0.00	
7	Integrated Power Development Scheme	5500.00	4524.01	3071.70	The allocation for IPDS was reduced in RE stage in line with overall reduction from Rs. 12200 crore (BE) to Rs

					10413.66 crore (RE).
8	PSDF (Gas/ Non-gas)	1900.00	619.31	324.27	Due to fluctuation of gas prices being not in line with estimation the utilization of subsidy was low. As regards PSDF non gas, the expenditure is low due to delay in fulfillment of conditionality attached to the scheme for release of funds.

IV. 12TH FIVE YEAR PLAN

4.1 The 12th Five Year Plan (2012-17) component has been approved in the 57th Meeting of National Development Council (NDC) held on 27th December, 2012. The 12th Plan has identified 25 monitorable targets which *inter alia* contain a monitorable target for power sector to provide electricity to all villages and reduce AT&C losses to 20% by the end of the 12th Five Year Plan.

4.2 The erstwhile Planning Commission assessed an Outlay of Rs.440795.84 crore, during the XIIth Plan period for the Central Sector comprising of Rs.386516.84 crore of Internal & Extra Budgetary Resources (IEBR), to be raised by the CPSUs themselves, and Rs 54279.00 crore of Gross Budgetary Support (GBS). The actual utilizationduring the XII Plan period(as on 31.01.2017) is Rs 279832.45crore including Rs 252090.77crore as IEBR and Rs 27741.68 crore as GBS.

4.3 The CPSU-wise and scheme wise break-up of financial performance so far in the 12th Plan is as under:-

Rs.incrore

S No.	Activity/ Organization		IEBR	GBS	Total
A	Investment in PSUs				
1	NTPC Ltd	Estimates	219612.50	0.00	219612.50
		Achievements	110232.80	0.00	110232.80
2	NHPC	Estimates	27312.04	2056.91	29368.95
		Achievements	11850.73	2002.36	13853.09
3	POWERGRID	Estimates	102034.00	0.00	102034.00
		Achievements	106466.00	0.00	106466.00
4	DVC	Estimates	14509.65	0.00	14509.65
		Achievements	10639.87	0.00	10639.87
5	THDC India Ltd	Estimates	6781.86	516.20	7298.06
		Achievements	3218.77	245.24	3464.01
6	SJVNL	Estimates	10400.00	0.00	10400.00

		Achievements	3372.87	0.00	3372.87
7	NEEPCO	Estimates	5866.79	406.18	6272.97
		Achievements	6309.73	289.41	6599.14
	Total (A)	**Estimates**	**386516.84**	**2979.29**	**389496.13**
		Achievements	**252090.77**	**2537.01**	**254627.78**
B	MoP Schemes (other than CPSUs)				
1	RGGVY/ DeenDayalUpadyaya Gram JyotiYojana (DDUGJY)	Estimates	0.00	25897.44	25897.44
		Achievement	0.00	14457.13	14457.13
2	R-APDRP/ Integrated Power Development Scheme (IPDS)	Estimates	0.00	10830.00	10830.00
		Achievement	0.00	6601.69	6601.69
3	220 Kv Transmission Line from Srinagar to Leh via Kargil	Estimates	0.00	1628.00	1628.00
		Achievement	0.00	833.54	833.54
4	Strengthening of Transmission System in the States of Arunachal Pradesh & Sikkim	Estimates	0.00	3014.00	3014.00
		Achievement	0.00	250.00	250.00
5	Power System improvement project in NE region except Arunachal Pradesh and Sikkim	Estimates	0.00	0.00	0.00
		Achievement	0.00	397.33	397.33
6	Power System Development Funds	Estimates	0.00	0.00	0.00
		Achievement	0.00	1660.47	1660.47
7	Energy Conservation + BEE	Estimates	0.00	2499.91	2499.91
		Achievement	0.00	297.37	297.37
8	Central Power Research Institute (CPRI)	Estimates	0.00	1368.90	1368.90
		Achievement	0.00	236.13	236.13
9	Financial Debt Restructuring of DISCOMs	Estimates	0.00	1000.00	1000.00
		Achievement	0.00	0.00	0.00
10	National Electricity Fund (NEF)	Estimates	0.00	3601.00	3601.00
		Achievement	0.00	16.93	16.93
11	Other MoP Schemes	Estimates	0.00	1460.46	1460.46
		Achievement	0.00	454.08	454.08
	Total(B)	**Estimates**	**0.00**	**51299.71**	**51299.71**
		Achievement	**0.00**	**25204.67**	**25204.67**
	Total GBS (A) + (B)	**Estimates**	**386516.84**	**54279.00**	**440795.84**
		Achievement	**252090.77**	**27741.68**	**279832.45**

Achievement for IEBR and GBS is as on 31.01.2017.

*.The scheme of RGGVY has been subsumed in the new scheme namely DeenDayalUpadyaya Gram JyotiYojana (DDUGJY) approved during 2014-15.

** The scheme of R-APDRP has been subsumed in the new scheme namely Integrated Power Development Scheme (IPDS) approved during 2014-15.

4.4 The details of yearly outlay and expenditure of Gross Budgetary Support during the 12th Plan period is given at **Annexure- II**. The details of the yearly financial performance (IEBR only) of CPUs during 12th Five Year Plan is given at Annexure **– III**

4.5 The Details of year wise budgetary allocation of the Ministry of Power both at BE and RE stages and its actual utilization so far in the 12th Five Year Plan are given below:-

Rs in crore

Financial Year	Component	BE	RE	Actual
2012-13	GBS	9642.00	4708.00	2536.71
	IEBR	52782.50	49988.01	48685.88
	Total	62424.50	54696.01	51222.59
2013-14	GBS	9642.00	5000.00	4529.72
	IEBR	49687.41	48962.89	53426.46
	Total	59329.41	53962.89	57956.18
2014-15	GBS	9642.00	5700.00	5590.21
	IEBR	50742.02	49788.18	51954.23
	Total	60384.02	55488.18	57544.44
2015-16	GBS	6799.74	8084.37	7826.84
	IEBR	54604.73	58285.19	55815.83
	Total	61404.47	66369.56	63642.67
2016-17	GBS	12200.00	10413.66	7259.32
	IEBR	67683.57	67069.66	42208.37
	Total	79883.57	77483.32	49467.69*

*Actual as on 31.01.2017

4.6 When the Committee asked for the reasons for variation between BE/ RE and Actuals in respect of for the Gross Budgetary Support (GBS) component during the 12th Five Year Plan Period, the Ministry have provided the following information.

2012-13

(Rs in crore)

Sl. No.	Name of the Schemes/ CPSU	BE 2012-13	RE 2012-13	Actual 2012-13	Reasons for improper utilization/shortfall
	1	2	4	5	6
1	RGGVY	4900.00	2492.02	697.94	An amount of Rs. 2500.00 crore (approx.) subsidy was lying as unspent with the Implementing agencies as of 31.12.2012. Delay in award of Phase II projects involving an amount of Rs. 1800 crore as 1st installment planned for release in 2012-13. Non submission of closure proposals by Implementing agencies for X plan projects. Non-release of final 10% due to non-fulfillment of conditionalities including franchisee deployment conditionality. Slow progress of works particularly in the states of Arunachal Pradesh, Bihar, Chhattisgarh, MP and J&K. Downward revision in project cost (approx. amount Rs. 500.00 crore) for 11th plan projects due to inclusion of state taxes while awarding but not payable under RGGVY. Implementing agencies have already been requested to segregate the same.
2	R-APDRP	3114.00	1500.00	1234.49	Award of contract for Part A (IT) has taken between 3 months to more than 3 years in States. Slow implementation of Part A (IT) across States. None of the States could complete the projects within the stipulated time of 3 years from date of sanction, even the best Utilities have taken almost 48 months Appointment of ITIA's by Utilities has taken between 12-18 months against envisaged schedule of 3 months from sanction. Exceptional cases include Haryana (42 months), Kerala (36 months) NE States (28 months) & Goa (23 months). Delay in DC Building & Infra. completion, delay in GIS work completion in view of non-availability of skilled man-power, delay in software customization and delay in meter/modem procurement & their installation resulting in delay in Part A project completion. Dispute and Court cases (Kerala, Bihar, Karnataka, NE States) have delayed the implementation.
3	CPRI	265.00	80.00	40.36	The reduction is mainly due to non-

					finalization of certain projects which have been deferred for the next Financial Year and delay in completion of civil works.
4	Energy Conserva-tion	200.00	55.00	37.00	The reduction is mainly due to delay in finalization of NMEEE and Energy Conservation Awareness Awards and Painting Competition Scheme for the XII Plan.
5	BEE	200.00	58.80	44.10	Due to non-finalization of the schemes for XII Plan.
6	Central Electricity Authority	19.08	6.53	5.35	Due to NIL provision under new (un-approved) schemes upgradation of IT facilities in CEA (Phase-II). The scheme Renovation & Modernization of Thermal Power Stations to be discontinued after 31.12.2012. Due to less provision under the scheme strengthening of REBs.
7	220kV Trans-mission line from Srinagar to Leh via Kargil	200.00	10.00	0.00	The scheme is yet to be approved by the Competent Authority.
8	Strengthe-ning of Trans-mission System in the States of Arunachal Pradesh & Sikkim	145.00	1.00	0.00	The non utilization is mainly due to non-finalization of the scheme.
9	National Electricity Fund	72.00	0.00	0.00	For independent evaluator it was assumed that evaluation of pre-eligibility conditions of utility and computation of interest subsidy will be done in first year only. However, after finalization of guidelines the role of independent evaluator was only required for evaluation of pre-eligibility conditions only in FY 2012-13. Accordingly budget estimates has been revised.

2013-14

(Rs in crore)

Sl. No.	Name of the Schemes/ CPSU	BE 2013-14	RE 2013-14	Actual 2013-14	Reasons for improper utilization/shortfall
	1	2	4	5	6
1.	RGGVY	4500.00	3137.65	2938.52	Non-award of 273 projects sanctioned during 2013-14 under 12th Plan involving a sanction cost of Rs 23594 crore (subsidy Rs 21235 crore) Non-drawl of final instalment by Project Implementing agencies in 209

					closed projects due to non-fulfillment of requisite conditionality. Slow progress of works under 10th and 11th plan including Phase-II in the States of Chattisgarh, Uttar Pradesh, Madhya Pradesh, Bihar& Jharkhand.
2.	R-APDRP	575.00	700.00	648.70	The excess expenditure was required as per progress made in the scheme.
3.	NHPC	995.83	628.01	628.01	As the cut was imposed at RE Stage as per trend of expenditure, the amount was surrendered.
4.	NEEPCO	447.00	111.00	111.00	The amount surrendered due to non receipt of approval of RCEs of Kameng HEP and Pare HEP.
5.	220kV Transmission line from Srinagar to Leh via Kargil	226.00	65.40	65.40	The approval of CCEA received only on 02.01.2014, hence the savings.
6.	THDCIL	133.72	30.00	30.00	The amount surrendered due to the work on the projects of Vishnugad-Pipalkoti and Dhukwan could not be started due to non issuance of G.O. by Government of Uttarakhand for diversion of forest land for these projects.
7.	Energy Conservation	564.45	16.00	16.00	Saving is due to delay in approval of the scheme and due to non finalization of proposed scheme NMEEE.
8.	CPRI	298.73	20.00	17.76	Saving is due to pending approval of EFC/SFC for the schemes of CPRI.
9.	Bureau of Energy Efficiency	193.41	77.60	66.72	The saving is due to non finalization of the proposed scheme and non receipt of UCs from different SDAs.
10.	National Electricity Fund	151.92	10.00	0.00	None of the participating states has filed any claim. Hence, the provision made in the grant for the year 2013-14 could not be utilized.
11.	Financial support for DISCOMs	1500.00	125.40	0.00	None of the participating states has filed any claim. Hence, the provision made in the grant for the year 2013-14 could not be utilized.

4.7 The Ministry in respect of year 2014-15 have stated that Gross Budgetary Support (GPS) was reduced to Rs. 5700 crore from the BE level of Rs. 9642 crore. As a result, the allocation of funds under the two flagship schemes had to be curtailed at the RE stage as well as in many

other small schemes. The position in respect of BE, RE and Actual utilization along with reasons for variation is tabulated below:

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

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

4.8 In respect of year 2015-16 the Ministry have stated that the allocation in BE 2015-16 for Ministry of Power was Rs 6799.74 cr which was enhanced to Rs 8084.37 cr in RE 205-16. The actual utilization was Rs 7826.84 crore which is 115.1% of BE and 96.81% of RE. Therefore there is no significant shortfall in expenditure in respect of BE and RE.

4.9 They have further stated that during the year 2016-17 against the allocation of Rs12200 crore in BE, the RE 2016-17 was reduced to Rs10413.66 crore due to reduced allocation under IPDS and PSDF. The actual expenditure as on 31.01.2017 is Rs7259.32 crore which is 59.50% of BE and 69.71% of RE.

4.10 When the Committee raised the issue of shortfall in achievement of financial targets of IEBR and GBS, the Secretary, Power defended as under:

"About the shortfall in IEBR and GBS which you referred to, let us understand how the 12th Plan was formulated between 2012 and 2017. The numbers earlier used to be worked out by the Planning Commission; and exercise was started in 2010 and by 2012 the number got frozen. In 2013-14, 2014-15, there was a sort of financial crisis and if you look at the BE, RE figures of 2013-14, and 2012-13, there was a huge cut in RE numbers. The GBS got affected because of that. The schemes that were started around 11th Plan as I mentioned earlier, both the schemes were difficult to implement but it picked up pace subsequently. Initial years of GBS utilization were pretty low."

4.11 A capacity addition target of 88,537 MW, excluding 30,000 MW of Renewable Energy Sources, has been fixed by the erstwhile Planning Commission for the 12th Plan period. The details of targets and achievements during 12th Plan are as under:

(Figures in MW)

SECTOR	THERMAL		HYDRO		NUCLEAR		TOTAL	
	TARGET	ACH.	TARGET	ACH.	TARGET	ACH.	TARGET	ACH.
CENTRAL	14878	13463.6	6004	2584.02	5300	1000	26182	17047.62
STATE	13922	21151.35	1608	2011	0	0	15530	23162.35
PRIVATE	43540	52730.5	3285	595	0	0	46825	53325.5
ALL INDIA	72340	87345.45	10897	5190.02	5300	1000	88537	93535.47

4.12 The yearly details of Capacity Addition targets and Achievements (source-wise and Sector-wise) during the 12th Plan is as under:

2012-13 (IN MW)

SECTOR	THERMAL		HYDRO		NUCLEAR		TOTAL	
	TARGET	ACH.	TARGET	ACH.	TARGET	ACH.	TARGET	ACH.
CENTRAL	4023.3	5023.3	645	374	2000.0	0	6668.3	5397.3
STATE	3951.0	3911	87	66	0	0	4038.0	3977
PRIVATE	7180.0	11187.5	70	70	0	0	7250.0	11257.5
TOTAL	15154.3	20121.8	802	510	2000.0	0	17956.3	20631.8

2013-14 (IN MW)

SECTOR	THERMAL		HYDRO		NUCLEAR		TOTAL	
	TARGET	ACH.	TARGET	ACH.	TARGET	ACH.	TARGET	ACH.
CENTRAL	3123.3	1660	914	914.01	2000.0	0	6037.3	2574.01

STATE	4451	3322	85	45	0	0	4536	3367
PRIVATE	7660	11785	199	99	0	0	7859	11884
TOTAL	15234.3	16767	1198	1058.01	2000.0	0	18432.3	17825.01

2014-15 (IN MW)

	THERMAL		HYDRO		NUCLEAR		TOTAL	
	TARGET	ACH.	TARGET	ACH.	TARGET	ACH.	TARGET	ACH.
CENTRAL	2818.3	2659.2	336	736	2000	1000	5154.3	4395.2
STATE	6770	4886.1	210	0	0	0	6980	4886.1
PRIVATE	5400	13285	296	0	0	0	5696	13285.0
TOTAL	14988.3	20830.3	842	736	2000	1000	17830.3	22566.3

2015-16 (IN MW)

	THERMAL		HYDRO		NUCLEAR		TOTAL	
	TARGET	ACH.	TARGET	ACH.	TARGET	ACH.	TARGET	ACH.
CENTRAL	2106.1	3295.6	590	480	1000	0	3696.1	3775.6
STATE	8120	6460	575	610	0	0	8695	7070
PRIVATE	7120	12705	526	426	0	0	7646	13131
TOTAL	17346.1	22460.6	1691	1516	1000	0	20037.1	23976.6

2016-17(IN MW)

	THERMAL		HYDRO		NUCLEAR		TOTAL	
	TARGET	ACH.*	TARGET	ACH.*	TARGET	ACH.*	TARGET	ACH.*
CENTRAL	2730.5	825.5	490.0	80	1500.0	0	4720.5	905.5
STATE	3910.0	2572.25	395.0	1290	0.0	0	4305.0	3862.25
PRIVATE	6800.0	3768	829.0	0	0.0	0	7629.0	3768
TOTAL	13440.5	7165.75	1714.0	1370	1500.0	0	16654.5	8535.75

*AS ON 31.01.2017

4.13 The Secretary, Power during the evidence on the subject while summarizing the achievements during the 12th Plan deposed before the Committee as under:

> "The 12th Plan target between 2012 and 2017 for capacity addition in the country as a whole was set at 88,537 MW. Against that target, as on 31 January 2017 we have added 93,535 MW. So, we have exceeded the target. The next major item is transmission capacity for which target in the 12th Plan was set at 1,07,440 circuit kilometres. Up to January this year we have already done 1,06,146 circuit kilometres which is close to 100 per cent achievement and we are going to achieve this target also. Similarly, if you see the transformation capacity in terms of MVA, the target was 2,03,408 MVA as against which we have already added 2,96,933 MVA. So, broadly, on the three elements that form the foundation of power sector - capacity addition, transmission capacity,

transformation capacity – we have achieved or in the process of achieving more than 100 per cent of the target that was given in 12th Plan. The impact of that, if you look at the Indian power sector there is no shortage in availability of power in the Indian market. It is reflected in terms of peak demand shortage or energy shortage which has come down to minimal. The open market price of power also reflects the availability of power. The rate in the exchange is very low because of adequate availability of power."

4.14 In regard to achievements of transmission sector, he stated as under:

"There used to be inter-regional transmission constraints. There used to be transmission constraint in the Southern region and it used to be difficult to evacuate power to that region as a result the prices in that region used to be higher than the national average. With so much of capacity addition now, there is no congestion anywhere as of today. Most of the days and most of the times, the price is uniform all over the country. That means, it is possible to evacuate power to wherever there is demand. This is the major transformation that has come in the last two and a half to three years. By augmenting the transmission capacity and transformation capacity, the market scenario of shortage which was prevailing in 2010-11 has changed and there is no shortage today. That is the fundamental issue."

4.15 In regard to problems in distribution sector, he deposed before the Committee as under:

"There are issues relating to distribution. Distribution sector is still an area of concern. During the last two years, Government's focus has been on how to improve the distribution sector, how to make it more efficient, how to make it more vibrant and how to reduce the losses. There are a lot of issues involved in that like technical issues and governance issues. To address technical issues, the scheme that Government of India has launched is the DDUGJY for the rural sector and IPDS for the urban sector. They aim to strengthen the distribution network in the country. Traditionally, because of various reasons the distribution infrastructure is under-invested, the amount of money that is required to augment the capacity in the distribution sector traditionally has not been put. So, Government of India came out with a scheme which is based on 60:40 sharing between Government of India and the State Governments to incentivise investment in distribution sector to strengthen the distribution system, to upgrade the system through the DDUGJY in rural areas and

through IPDS in the urban areas. Basically the idea is to improve the performance of the distribution sector by making it more efficient. The impact of accounting for the energy, improving the collection efficiencies, improving the billing efficiencies directly affects the revenue of Discoms. When we tried to improve the distribution sector, we found that there are some legacy issues. There was some baggage from earlier years. Many Discoms had accumulated debts whose burden was pulling them down. So, the Government came up with the UDAY scheme. UDAY scheme was aimed at addressing two issues. One is the legacy issue of how to address the historical debt that had accumulated with the Discoms. The other is how to compel the Discoms to operate in a more efficient way at present and in the future."

4.16 The Capacity Addition target of 78,000 MW was set for the 11th Five Year Plan. During Mid Term Appraisal of 11th Five Year Plan, the said target was revised to 62,374 MW. However, at the end of the Plan, the actual achievement was 54,964 MW.

4.17 The details of capacity addition – target and achievement – in the 11th Plan is tabulated below:

	Original Target				**Actual Capacity Addition**				**Slippage into XII Plan**			
	Thermal	**Hydro**	**Nuclear**	**Total**	**Thermal**	**Hydro**	**Nuclear**	**Total**	**Thermal**	**Hydro**	**Nuclear**	**Total**
Central	24840	8654	3380	36874	12790	1550	880	15220	12050	7104	2500	21654
State	23301	3482		26783	14030	2702		16732	9292	780		10072
Private	11552	3491		15043	21720	1292		23012	-510	2199		1689
Total	59693	15627	3380	78700	48540	5544	880	54964	20832	10083	2500	33415

4.18 The target for the XII Plan in respect of construction of transmission lines and transformation capacity of sub-station is 1,07,440 CKm and 2,82,750 MVA.Against a target of 1,01,745 CKm of transmission lines during XII Plan (upto Dec' 16), the achievement is 1,04,640 CKm as on 31.12.2016. Further, against a target of 2,03,408 MVA of sub-stations during XII

Plan (upto Dec'16), the achievement is 2,96,933 MVA as on 31.12.2016. The year wise details are given below:

Transmission line(Circuit Km-Ckm)

Year	Target	Actual
2012-13	17426	17107
2013-14	18674	16748
2014-15	20882	22101
2015-16	23712	28114
2016-17 (upto 31.12.2016)	21051	20570
Total	**1,01,745**	**1,04,640**

Transformation Capacity (MVA)

Year	Target	Actual
2012-13	31669	63665
2013-14	35363	57330
2014-15	47871	65554
2015-16	50542	62849
2016-17(upto 31.12.2016)	37963	47535
Total	**2,03,408**	**2,96,933**

4.19 The year-wise details of electricity generation targets and achievements during the 12th Five Year Plan:

Year	Target (BU)	Achievement (BU)	% of Target
2012-13	930.000	912.056	98.07
2013-14	975.000	967.150	99.19
2014-15	1023.000	1048.673	102.51
2015-16	1137.500	1107.386	97.35
2016-17 (upto 31.12.16)	882.943	872.961	98.87

4.20 When the Committee desired to know the investment in power sector during the 12th Five Year Plan Period and whether the required fund was fully arranged, the Ministry in written reply has stated as under:

> "The 12th Plan document had projected investment in Electricity Sector at Rs.15.02 lakh crore. This figure was revised by the High Level Committee for Financing Infrastructure to Rs.9.08 lakh crore as the pace of anticipated investment in the first year of 12th Plan (2012-13) did not pick up due to several bottlenecks and barriers.The revised projected figures were as follows:
>
> (Rs. in crores)

	Original Plan	% to Total	Revised HLC	% to Total
Centre	4,40,796	29.35%	2,94,864	32.46%
State	3,47,043	23.11%	2,25,263	24.80%
Public Sector	7,87,839	52.46%	5,20,127	57.25%
Private Sector	7,13,827	47.54%	3,88,336	42.75%
Total	15,01,666	100%	9,08,463	100%

4.21 It was further stated that there is no shortage of funds. Growth in capacity for generation, transmission, etc. is a function of the demand that exists in the economy. In fact, during the last 5 years or so, capacity addition has grown faster vis-à-vis demand for electricity resulting in lower capacity utilization.

V. MINISTRY OF POWER SCHEMES (FUNDED THROUGH GBS)

A. Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

5.1 The Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) is the new scheme introduced by the Government of India in 2014-15. The erstwhile Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) scheme which was launched by Government of India in April, 2005 for providing access to electricity to all households has been subsumed under DDUGJY Scheme as Rural Electrification Component. The scheme will cover works relating to feeder separation, strengthening of sub-transmission & distribution systems, including metering of distribution transformers/feeders/consumers and rural electrification.

5.2 The following components have been prescribed under the DDUGJY:

(i) Separation of agriculture and non-agriculture feeders to facilitate Discoms in the judicious rostering of supply to agricultural and uninterrupted quality power supply to non-agricultural consumers.
(ii) Strengthening and Augmentation of Sub Transmission & Distribution infrastructure in rural areas, including metering of Distribution Transformers/feeders/consumers and
(iii) Rural Electrification: The erstwhile Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) scheme which was launched by Government of India in April, 2005 for providing access to electricity to all households has been subsumed under DDUGVY Scheme as RE component. The outlay of RGGVY scheme for the 12th and 13th Plans shall be carried forward under DDUGJY.

5.3 In regard scope of the works under DDUGJY, the Ministry has furnished the following details:

1. Feeder Separation

(i) Physical separation of HT feeders for Agricultural and non-Agricultural consumers

(a) Erection of HT lines for drawing new feeders and reorientation/re-alignment of existing lines

(b) Installation of new distribution transformers and augmentation of existing distribution transformers

(c) Re-location of distribution transformers and associated LT lines for re-grouping of consumers (Agricultural and Non-Agricultural)

(ii) Virtual separation of feeders

(a) Installation of new distribution transformers and augmentation of existing distribution transformers

(b) Re-location of distribution transformers and associated LT lines for re-grouping of consumers (Agricultural and Non-Agricultural)

(c) Installation of rotary switch and associated hardware at sub-stations

Feeders already segregated by the States Discoms / Power Deptt. shall not be eligible to be covered under this scheme. However, the feeders already segregated by virtual means could be considered for undertaking physical separation under the scheme.

2. Strengthening of sub-transmission and distribution system in rural areas to address critical gaps

The following works shall be eligible to be covered under the scheme based on study/ assessment carried by the respective State Discoms/ Power Department for identifying critical gaps in sub-transmission and distribution network considering all relevant parameters (such as voltage regulation, HT & LT ratio, optimum loading of transformers & lines, reactive power management, power factor improvement, standard of performance, ongoing works under other schemes, etc.)

(i) Creation of new sub stations along with associated 66 KV / 33 KV/ 22 KV/ 11 KV lines.

(ii) Augmentation of existing sub-stations capacity by installation of higher capacity/additional power transformer along with associated equipment/ switchgear, etc.

(iii) Erection of HT lines for reorientation/re-alignment, including augmentation of existing lines

(iv) Installation of new distribution transformers and augmentation of existing distribution transformers along with associated LT lines

(v) Installation of capacitors

(vi) Renovation and Modernization of existing sub-stations and lines

(vii) High Voltage Distribution System (HVDS)

(viii) Arial Bunched Cable for theft prone areas

3. Metering

(i) Installation of suitable static meters for feeders, distribution transformers and all categories of consumers for existing un-metered connections, replacement of faulty meters & electro-mechanical meters

(ii) Installation of Pillar Box for relocation of meters outside the premises of consumers, including associated cables and accessories.

4. Rural electrification component as per ongoing RGGVY scheme in accordance with CCEA approval dated 01.08.2013 for continuation of scheme in 12th and 13th Plan and applicable guidelines.

5. Completion of optical fibre missing links to connect all the 33 KV or 66 KV grid sub stations under the establishment of the National Optical Fibre Network (NOFN).

6. Creation of rural electrification data hub at REC.

7. Provisioning of micro-grid and off-grid distribution network.

Above works shall be eligible under the scheme provided the proposed scope of works is not covered under any GoI program like R-APDRP/ RGGVY / NEF, etc. The projects for which any other grant / subsidy from Government of India has already been received / proposed to be received shall not be eligible under this scheme. State Level Standing Committee (SLSC) under the chairmanship of Chief Secretary shall ensure that there is no duplication of works while recommending the projects to the Nodal Agency.

5.4 All Discoms, including private sector Discoms and State Power Departments, are eligible for financial assistance under the scheme. In case of private sector Discoms where the distribution of power supply in rural areas is with them, projects under the scheme will be implemented through a State Government Agency and the assets to be created under the scheme will be owned by the State Government / State owned companies. These assets will be handed over to the Discom concerned for their use during the license period on mutually agreed terms & conditions. The responsibility of operation and maintenance of these assets would be of the Discom concerned.

5.5 The Discoms will prioritize strengthening of rural infrastructural works considering specific network requirement and will formulate Detailed Project Reports (DPRs) of the projects for coverage under the scheme. The DPRs will be recommended by existing State

Level Standing Committee (SLSC) constituted for RGGVY programme under the chairmanship of Chief Secretary before submission to the Nodal Agency. The projects shall be appraised and duly recommended by the Nodal Agency for approval of the Monitoring Committee chaired by Secretary, Ministry of Power, and Government of India.

5.6 The projects shall be implemented on turn-key basis. The turn-key contract shall be awarded by the utilities concerned through e-tendering in accordance with the prescribed Standard Bidding Document and Technical Specifications. The projects have to be awarded within six months of date of communication of the approval by the Monitoring Committee. However, in exceptional circumstances, execution on partial turn-key/departmental basis shall be permitted with the approval of the Monitoring Committee.

5.7 The Ministry have enumerated the following features of DDUGJY:

- DDUGJY scheme covers all rural areas, irrespective of any population criteria to ensure access to electricity to all rural households in the country.
- DDUGJY is a comprehensive scheme which covers all aspects of distribution of electricity in rural areas, including feeder separation, strengthening & augmentation of sub-transmission & distribution network and metering for feeders/distribution transformers/ consumers. Besides this, provision has been made to connect all 33/11 KV sub-stations under National Optical Fiber Network,
- Installation of higher capacity Distribution Transformers (63 KVA and 100 KVA) have been allowed.
- Complete flexibility has been provided to the States to priorities scope of work as per their requirement.
- The works in Gram Panchayat selected under Saansad Adarsh Gram Yojana (SAGY) shall necessary be included in the DPR.
- States have notified District Electricity Committee headed by the senior most MP of the district. The District Electricity Committee are expected to meet at least once in 3 months at the District headquarters. The Committee are consulted in the preparation

of DPRs and monitor the implementation of the scheme.

- Uniform Procurement Policy with Standard Bidding Document and Technical Specifications has been prescribed. E-tendering has been made mandatory.
- To ensure efficient and effective implementation of scheme by the States, provision for Project Management Agency (PMA) has been made to assist them in project formulation, bid processing, monitoring, etc. for timely implementation of scheme. 100% grant will be provided by Government of India towards expenditure incurred on Project Management Agency (PMA) as per provision in the scheme, i.e. up to 0.5% of cost of works.
- To ensure timely completion and effective implementation, provision for additional grant up to 15% (5% for special category states) has been made subject to achievement of following milestones:
  a) Timely completion of the scheme as per laid down milestones
  b) Reduction in AT&C losses as per trajectory finalized by MOP in consultation with State Governments (Discom-wise)
  c) Upfront release of admissible revenue subsidy by State Govt. based on metered consumption.
- No cost overrun on account of any reasons whatsoever shall be allowed over & above project cost approved by the Monitoring Committee for the purpose of determining grant component. Any such escalation to be borne by utilities / State through own resources/loan from FIs.
- Utilities have to appoint a Project Management Agency to assist them in project formulation, bid process, preparing detailed work schedule, monitoring, MIS, etc. till completion of project. 100% grant (limited to 0.5% of project cost) will be provided by GOI.
- Rural Electrification Corporation (REC) is the Nodal Agency for operationalisation of the scheme.
- All Discoms, including private sector Discoms and State Power Departments, are eligible for financial assistance under the scheme.
- The scheme will be implemented during the 12th and 13th Plans in cooperation with the Discoms and the State Governments and will facilitate 24x7 reliable and adequate power supply in the rural areas.

5.8 The Funding Mechanism for DDUGJY will be as given under:

Agency	**Nature of support**	**Quantum of support (Percentage of project cost)**	
		Other than Special Category States	Special Category States #
Govt of India	Grant	60	85

Discom Contribution	Own Fund	10	5
Lender (FIs/ Banks)	Loan	30	10
Additional Grant from GOI on achievement of prescribed milestones	Grant	50% of total loan component (30%) i.e. 15%	50% of total loan component (10%) i.e. 5%
Maximum Grant by GOI (including additional grant on achievement of prescribed milestones)	**Grant**	**75%**	**90%**

#Special Category States *(All North Eastern States, including Sikkim, J&K, Himachal Pradesh, Uttarakhand)*

5.9 Additional grant (i.e. conversion of 50% of loan component) under the scheme will be released, subject to achievement of following milestones:

(a) Timely completion of the scheme as per laid down milestones
(b) Reduction in AT&C losses as per trajectory finalized by MOP in consultation with State Governments (Discom-wise)
(c) Upfront release of admissible revenue subsidy by State Govt. based on metered consumption,

5.10 The DDUGJY has been approved with an estimated outlay of Rs. 43,033 crore, including a budgetary support of Rs. 33,453 crore from Government of India, during the entire implementation period. The year-wise allocation of budgetary support approved by CCEA is as under:

(Rs. crore)

Year	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**Total**
Subsidy	**500**	**3500**	**6500**	**8500**	**7500**	**2500**	**2000**	**2453**	**33453**

5.11 Total outlay for the scheme, including Rural Electrification (RE), is as under:

(in Rs. Crore)

	Outlay	Subsidy
DDUGJY(new)	43,033	33,453
RE component	32,860	29,574
Total Outlay	75,893	63,027

5.12 In regard to status of implementation of the scheme, the Ministry have stated that as informed by State Governments, there were 18,452 un-electrified villages in the country on 01.04.2015. Of these, 11,941 villages have been electrified up to 31.01.2017. Electrification of the remaining villages is targeted to be electrified by May, 2018. The Year-wise and State-wise targets are presented as below:

State-wise number of un-electrified villages to be electrified under Deen Dayal Upadhayay Gram Jyoti Yojana

As on 31.01.2017

Sl. No.	State	Number of un-electrified villages (on 01.04.2015)	FY 2015-16	FY 2016-17		FY 2017-18
			Ach.	Target	Ach. as on 31.01.2017	Target
1	Arunachal Pradesh	1578	174	1039	175	365
2	Assam	2892	942	1377	924	573
3	Bihar	2747	1754	735	408	258
4	Chhattisgarh	1080	405	500	199	175
5	Himachal Pradesh	35	1	34	27	0
6	Jammu & Kashmir	134	27	79	5	28
7	Jharkhand	2525	750	1314	809	461
8	Karnataka	39	0	39	7	0
9	Madhya Pradesh	472	214	191	154	67
10	Manipur	276	75	149	115	52
11	Meghalaya	912	1	674	679	237
12	Mizoram	58	16	42	23	0
13	Nagaland	82	0	82	55	0
14	Odisha	3474	1264	1586	810	624
15	Rajasthan	495	163	246	263	86
16	Tripura	26	9	17	11	0
17	Uttar Pradesh	1529	1305	166	159	58
18	Uttarakhand	76	0	76	8	0
19	West Bengal	22	8	14	2	0
Total		**18452**	**7108**	**8360**	**4833**	**2984**

5.13 Replying to the query of the Committee relating to deadline of electrify all the villages, the Secretary, Power deposed before the Committee as under:

> "The original deadline of the scheme is 2022. We will try to complete the scheme by 2022. The sub-component of the Deendayal Upadhyay scheme was the electrification of un-electrified villages and the Hon'ble

> Prime Minister had given a deadline of 1000 days which comes to end on 1st May, 2018. We are well on track. As on today, we have crossed more than 12,200 villages. So, about 5,800 villages are left which we will be able to complete before May, 2018. Our target is to complete it before May 2018 and not wait for 1000 days."

5.14 The Committee pointed out that though many states have made commendable progress in implementation of DDUGJY, some States are still lagging behind. The representative of the Ministry of Power deposed before the Committee as under:

> "I have already told that not every State is in the similar condition, he has rightly said that some works could not be undertaken in Jammu and Kashmir because tender work is under process. For their hand holding on the behalf of the Government of India, we have written letters to them to the extent that if they need to use our CPSU, they can. Only they have to decide. We cannot say in a federal system that you should get the work done by them only. This is the situation and we are doing their hand holding."

5.15 It was further stated that under DDUGJY, during FY 2015-16 and FY 2016-17 a capital subsidy of Rs.4500 crore and Rs.4481.25 crore has been disbursed by the Government of India respectively. During the FY 2004 to 2015 a capital subsidy of Rs.33161.63 crore was disbursed under DDUGJY. The year-wise financial achievements under the scheme, is presented as below:

Year	**Budget allocation (Rs in crore)**	**Fund Released by MoP** (Rs. in crore)
2004-05	400.00	400.00
2005-06	1100.00	1100.00
2006-07	3000.00	3000.00
2007-08	3944.56	3913.45
2008-09	5500.00	5500.00
2009-10	5000.00	5000.00
2010-11	5000.00	5000.00
2011-12	3544.00	2237.31
2012-13	2492.02	697.94
2013-14	3137.65	2938.52
2014-15	3386.38	3374.41
2015-16	4500	4500.00
2016-17	3000	2946.26 (upto 31.01.2017)
2017-18	4814	-

5.16 When the Committee desired to know the monitoring mechanism for proper implementation of Deen Dayal Upadhay Gram Jyoti Yojana (DDUGJY), the Ministry replied as under:

> "The following monitoring mechanisms for proper implementation of DeenDayal Upadhayaya Gram Jyoti Yojana, has been adopted:At State level, a Committee under the Chairmanship of Chief Secretary is in place to monitor progress and resolve issues relating to implementation viz. allocation of land for sub-stations, right of way, forest clearance, railway clearance, safety clearance etc. At District level, District Development Co-ordination & Monitoring Committee namely DISHA (administered by Ministry of Rural Development) headed by senior most Member of Parliament (Lok Sabha) is in place to review and monitor implementation of central sector schemes including DDUGJY. At Central level, inter-ministerial Monitoring Committee on DDUGJY headed by the Secretary, Ministry of Power, Government of India also monitor implementation of scheme. Besides, the progress is reviewed with States / Power Utilities in Review, Planning and Monitoring (RPM) meeting of Ministry of Power on monthly basis. Rural Electrification Corporation Limited (REC), the nodal agency, monitors implementation of scheme through its project offices at field level. REC has developed a web enabled Mobile App, 'GARV' for monitoring of village electrification."

5.17 When the Committee asked for the information regarding penal action taken against the responsible persons when irregularities are found during the monitoring check under the scheme, the Ministry replied as under:

> "Under DDUGJY, the defects in works reported by Quality Monitors are rectified by the respective Implementing Agencies. The complaints received from public, are addressed to the concerned State, Utility, Implementing Agencies for remedial measures/compliance".

5.18 In this regard the representatives of the Ministry of Power deposed as under:

> "Some cases have been lodged which are not related to deliberate thefts but some losses/damages are found and there seem to be involvement of a particular person. In such cases, FIR etc. has been lodged. This happened particularly in one or two districts of Uttar Pradesh. A CBI case

is in process for quite a long time in Latehar, Palamu etc. Cases are lodged wherever there is criminality found."

5.19 The details of State-wise progress of un-electrified villages, intensive electrification of electrified villages and release of free electricity connection to BPL households during last three year under DDUGJY,are given at **Annexure IV, V and VI** respectively.

5.20 When the Committee raised the issue of non-inclusion of various villages under DDUGJY and desired to know the mechanism to cross check/verify the list of un-electrified villages prepared by the State Government, the Ministry in their written reply have stated as under:

"Electricity is a concurrent subject and Distribution Companies are primarily responsibility for electrification and custodian of related data. The Central Government rely upon the reports submitted by the State DISCOMs/Power Department for updating the status of village electrification. Nevertheless, under DDUGJY, States are requested to compile the list of such un-electrified villages duly identified by the Census code of 2011. Online monitoring mechanism is available in form of mobile App 'Garv'. Milestone based approach has also been adopted wherein the entire process of village electrification has been divided in 12 stages and completion of each stage is updated from time to time. Gram Vidyut Abhiyantas (GVAs) have been deployed by REC to assist concerned State DISCOMs / Power Department in monitoring works

B. Integrated Power Development Scheme (IPDS)

5.21 The Integrated Power Development Scheme (IPDS) was formulated on 20th November, 2014 with an objective to provide 24x7 power supplies for consumers, to providing access to all urban households and facilitate State Power Utilities to reduce the level of AT&C losses to 15% by:

i. Strengthening of sub-transmission and distribution network in the urban areas
ii. Metering of distribution transformers/feeders/consumers in the urban areas
iii. IT enablement of distribution sector and strengthening of distribution network as per CCEA approval dated 21.06.2013 for completion of targets laid down under Restructured Accelerated power Development and Reforms Programme (R-APDRP) for 12th and 13th Plans by carrying forward the approved outlay of R-APDRP to IPDS.

5.22 The scheme is designed to help in AT&C loss reduction, establishment of IT enabled energy accounting/auditing improvement in billed energy based on metered consumption and improvement in collection efficiency.

5.23 The programme (excluding R-APDRP component) have estimated outlay of Rs. 32,000 crore including a budgetary support of Rs. 25,354 crore from Government of India during the entire implementation period. Besides this R-APDRP scheme cost of Rs 44,011 crore including a budgetary support of Rs 22,727 crore as already approved by CCEA will be carried forward to the new scheme of IPDS in addition to the outlay for other components. It has been further informed that funding under IPDS shall also be for completion of optical fiber missing links to connect all the 33 KV or 66 KV grid sub-stations under the establishment of National Optical Fiber Network, establishment of National Power Data hub at CEA and installation of solar panels.

5.24 The funding mechanism under IPDS scheme is proposed as under:

Agency	Nature of support	Quantum of support (Percentage of project cost)	
		Other than Special Category States	Special Category States #
Govt. of India	Grant	60	85
Discom Contribution*	Own Fund	10	5
Lender (FIs/ Banks)	Loan	30	10
Additional Grant from GOI on achievement of prescribed milestones	Grant	50% of total loan component (30%) i.e. 15%	50% of total loan component (10%) i.e. 5%
Maximum Grant by GOI (including additional grant on achievement of prescribed milestones)	**Grant**	**75%**	**90%**

Special Category States (All North Eastern States including Sikkim, J&K, Himachal Pradesh, Uttarakhand)
*Minimum contribution by Discom(s) is 10% (5% in case of Special Category States). However, Discom(s) contribution can go up to 40% (15% in case of Special Category States), if they do not intend to avail loan. In case, the Discom(s) do not avail loan, the maximum eligible additional grant would be 15% (5% in case of Special Category States) on achievement of prescribed milestones. The loan component would be provided by PFC or by other FIs / Banks.

5.25 Additional grant (50% of loan component i.e. 5% for special category States and 15% for other States) shall be released subject to achievement of following milestones:

(a) Timely completion of the scheme as per laid down milestones
(b) Reduction in AT&C losses as per trajectory finalized by MOP in consultation with State Governments (Discom-wise)
(c) Upfront release of admissible revenue subsidy, if any, by State Govt. based on metered consumption.

5.26 Restructured Accelerated Power Development & Reforms Programme (R-APDRP) was approved as a central sector scheme for implementation during XI Plan & the sanction of the President for same was conveyed vide MoP order dated September 19,2008. The completion period for Part-A of the scheme was further extended by 2 years vide MoP order dated July 08, 2013. The scheme has been approved by CCEA for continuation in 12th and 13th Plans and R-APDRP Steering Committee has been authorized to grant further time extension for successful completion of project.

5.27 The scheme comprises of three parts-Part-A, Part-B & Part C. Part-A of the scheme is dedicated to establishment of IT enabled system for achieving reliable & verifiable baseline data system in all towns with population greater than 30,000 as per 2001 census (10,000 for Special Category States). Implementation of SCADA/DMS for towns with population greater than 4 lakhs & annual input energy greater than 350MU is also envisaged under Part-A.

5.28 Part-B deals with regular Sub Transmission & Distribution system strengthening & upgradation projects. The focus in Part-B is on reduction of Aggregate Technical & Commercial (AT&C) losses on sustainable basis and on improvement of Distribution system. Part-B is considered for sanction for towns where Part-A(IT) is implemented.

1.62 R-APDRP also has provision for Capacity Building of Utility personnel and development of franchises under Part-C of the scheme. Few pilot projects adopting innovations are also envisaged under Part-C. The funding under Part C is through grant.

5.29 When the Committee asked for the physical and financial targets under the scheme the following information was furnished by the Ministry of Power:

Financial Year	**Financial Progress [Rs. in crore] vis-à-vis Targets**		**Physical Progress vis-à-vis Targets**	
	Target	**Progress**	**Target**	**Progress**
2008-09	325	325	No Target	Sanctions worth Rs.1947 cr
2009-10	1321	1321	Sanctions worth Rs.1900 cr	Sanctions worth Rs.6238 cr
2010-11	2257	2257	Sanctions worth Rs.9000 crore	Sanctions worth Rs.13665 cr
2011-12	1600	1600	Sanctions worth Rs.5697 crore	Sanctions worth Rs.9595 cr
2012-13	1217	1217	• Sanctions worth Rs.1084 cr • Go Live 170 Towns	• Sanctions worth Rs.3727 crore • Go Live 170 Towns
2013-14	640	640	Go Live of 299 Towns	Go Live of 339 Towns
2014-15	578	578	• Go Live of 300 Towns • Part-B Completion of 150 Towns • SCADA Control Center Commissioning-20 Towns	• Go Live of 352 Towns • Part-B Completion of 151 Towns • SCADA Control Center Commissioning-20 Towns

2015-16	1001.55 Grant- 333.73 Loan- 667.82	1001.55 Grant- 333.73 Loan- 667.82	• Go Live of 350 Towns • Part-B Completion of 200 Towns • SCADA Control Center Commissioning-25 Towns • Sanctions under IPDS-Rs.5000 cr	• Go Live of 361 Towns • Part-B Completion of 204 Towns • SCADA Control Center Commissioning-25 Towns • Sanctions under IPDS-Rs.19747cr
2016-17	4524.01 Grant- 2943.37 Loan- 1580.64	As on 3rd Feb.17, 3171.34cr with Grant-1905.40cr & Loan- 1265.94cr	• Go-Live of 171 Towns • SCADA CC commissioning-6 Towns • SCADA Completion-18 Towns • Part-B Completion-358 Towns • Feeders on NPP-17374	As on 3rd February'17, • Go-Live of 58 Towns • SCADA CC commissioning-2 Towns • SCADA Completion-5 Towns • Part-B Completion-320 Towns • Feeders on NPP-16873 • All Targets likely to be achieved by March'17.

5.30 When the Committee desired to know as to how IPDS is more effective in reducing AT&C losses and asked for the tangible improvements and data in support, the Ministry in their written reply has stated as under:

> "As such, present scheme is more utility friendly & enables easy funding for state utilities for upgradation of power distribution network and 100% metering. These factors can enable AT&C loss reduction in effective way. The present scheme also encourages utilities to extend IT infrastructure developed under R-APDRP for energy auditing/accounting for other towns also. The impact of AT&C loss reduction is likely to be visible on execution of projects sanctioned under the scheme. Presently, projects worth Rs. 25880crore have been sanctioned for 3597 towns in 537 circles. Utilities have placed award for 189 circles. All circles are likely to be awarded by March'18 and execution is likely to be completed within 24 months of award i.e. progressively from FY 19-20. Considering immense improvement in urban areas including metering progressively from FY19-20, AT&C losses are likely to reduce w.e.f. FY19-20."

5.31 When the Committee desired to know the problems and hindrances in implementation of IPDS and how long it will take to achieve the main objective of this scheme that is reduction of AT&C losses to 15%, the Ministry have replied as under:

"Delays in award due to fewer EPC contractors vis-à-vis huge IPDS/DDYGJY NITs being issued simultaneously. The impact of AT&C loss reduction is likely to be visible on execution of projects sanctioned under the scheme. Presently, projects worth Rs. 25880crore have been sanctioned for 3597 towns in 537 circles. Utilities have placed award for 189 circles. All circles are likely to be awarded by March'18 and execution is likely to be completed within 24 months of award i.e. progressively from FY 19-20. Considering immense improvement in urban areas including metering progressively from FY19-20, AT&C losses are likely to reduce w.e.f. 2019-20. The reduction of AT&C losses in different Utilities are likely to be different due to terrain, nature of load and consumer-mix. As per IPDS Guidelines, additional 15% of scheme cost is provided as grant(5% for special category states) on achievement of certain milestones including reduction in AT&C losses as per trajectory finalized by MoP in consultation with State Governments (Discom-wise)."

5.32 When the Committee desired to know the effectiveness of IPDS in reduction of AT&C losses, the representative of the Ministry of Power apprised the Committee as under:

"The IDPS which we are implementing today, we have performed a small exercise therein. A copy of the instruction you gave in the last meeting, has been submitted to you. It was sent earlier too. We have taken samples from 76 such cities in the beginning and we found that AT&C losses have occurred in 85% of townships. There were two components in R-APDRP which were under implementation, one was IT enabling. This enable us to do energy audit - measure input, know the exact loss and the area where it occurred. The second component was related to technical up gradation as the same is also required to minimising the losses. Now, under IPDS we not only strengthening the system but also increased the numbers of cities from 1409 to 4104 for this purpose. All the cities in the country, as per 2011 census, are going to be covered under the scheme. As of now 21 States and UTs, have joined UDAY."

5.33 In regard to deadline of achieving the main objective of IPDS i.e. bringing down AT&C losses to 15%, the Secretary, Power deposed before the Committee as under:

"IPDS is a multi-facets scheme - AT&C losses reduction is one of its components. Strengthening, metering, communication, consumer oriented information, consumer grievances, reliability, how much interruptions are there and for how much time, are the overall objective of IPDS. When we talk of 15% AT&C losses, we are talking of utilities as a whole. Each utility

has two areas – urban and rural. IPDS covers only the urban areas. Under 24X7 documents or 'UDAY', trajectories have been given for each of the States. Some States losses are relatively higher; therefore, we hope that it would take 2 to 3 years to bring down their losses to 15%. There is separate trajectory for every State. We have agreements with them. Objective is to more towards that. We only wish that the target of 15% may be achieved by all at the earliest. Practically it wills not happen. It will take time. We have given a separate deadline to each utility after discussing it with them. Some utilities will achieve it in 2018; some will achieve it in 2019 and some will achieve it in 2020. This depends on their present status. Some utilities have huge losses; some are in a better position."

5.34 The Secretary, Power also added:

"We have set different targets for different Discoms in various States in consultation with them. For AT&C losses, it is my submission that whether we implement IDPS system or introduce technology, it will only diagnose. It will tell that this Utility is getting that much of energy input and of which that much of energy is being billed and this much is the actual collection, therefore, these are the losses. This will also tell the amount of loss the feeder is suffering. However, the correction cannot be made through technology. That is the governance issue. If I know that this feeder is suffering 30% losses then I will have to find out the reasons for losses and take corrective steps. IPDS or other technology interventions only facilitate utilities and bring it to their notice that this is what in happening and we are requesting them to take corrective action. Until there is no mapping of consumer of a feeder, total energy supplied is billed and collected, AT&C losses will not reduce. Ultimately, it only an enabling framework based on technology. We are talking with the utilities and the State Governments and creating an eco system asking them to take action and address the issue. So, it is both enabling technology and governance and address the issue. It will only create an environment. Ultimately, we have to force or request or compel the State to take action to bring down AT&C losses. By introducing IPDS per se will not lead anywhere. We have to spread awareness for it. There is need to fix accountability and there should be a disclosure in the public domain as to how much are the losses. We would say that this much loss is occurring, and disclose it in the public. There will be enough pressure on the system to correct. This is what we are trying to do."

VI. UJJAWAL DISCOMS ASSURANCE YOJANA (UDAY)

6.1 The Ministry have informed that Ujjawal Discoms Assurance Yojana (UDAY) has been formulated and launched for a sustainable financial and operational turnaround of DISCOMs; provides permanent solutions to legacy debts and to address potential future losses. The main feature of this scheme is as under:

- Empowers DISCOMs with the opportunity to break even in the next 2-3 years through four initiatives.
- Operational efficiency improvements viz. metering, up-gradation of transformers/ other infrastructures, energy efficiency measures like efficient LED bulbs, agricultural pumps, fans & air-conditioners etc. to reduce the average AT&C loss from around 22% to 15%; Elimination of the gap between ACS and ARR by 2018-19.
- Reduction in cost of power through measures such as increased supply of cheaper domestic coal, coal linkage rationalization, liberal coal swaps from inefficient to efficient plants, coal price rationalization based on GCV, supply of washed and crushed coal, and faster completion of transmission lines.

6.2 Financial turnaround through States taking over 75% of DISCOM debt as on 30th Sept, 2015 over two years.

- 50% of DISCOM debt to be taken over in 2015-16 and 25% in 2016-17 – reduction of the interest cost on the debt taken over by the States to around 8-9%, from as high as 14-15%.
- DISCOM debt not taken over by the State shall be converted by the Banks / FIs into loans or bonds with interest rate not more than the bank's base rate plus 0.1%. Alternately, this debt may be fully or partly issued by the DISCOM as State guaranteed DISCOM bonds at the prevailing market rates which shall be equal to or less than bank base rate plus 0.1%.
- Further provisions for spreading the financial burden on States over three years to give flexibility in managing interest payment within their fiscal place in initial years.
- Provision for incentives/ disincentives for future financial performance for participating states.

- ❖ States to take over and fund at least 50% of the future losses (if any) of DISCOMs in a graded manner.
- ❖ State DISCOMs to comply with the Renewable Purchase Obligation (RPO) outstanding since 1st April, 2012
- ❖ States joining UDAY and performing as per operational milestones will be given additional/priority funding through DDUGJY, IPDS and PSDF or other such schemes of Ministry of Power and Ministry of New and Renewable Energy.
- ❖ Such States shall also be supported with additional coal at notified prices and, in case of availability through higher capacity utilization, low cost power from NTPC and other Central Public Sector Undertakings (CPSUs).
- ❖ States not meeting operational milestones will be liable to forfeit their claim on IPDS and DDUGJY grants.

6.3 When the Committee asked as to how this scheme is better than the previous schemes of the Central Government with the same objective, the Ministry have replied as under:

> "Unlike the previous scheme, this scheme has been formulated for a sustainable financial and operational turnaround of DISCOMs which is expected to provide permanent solutions to legacy debts of Discoms and to address potential future losses as well in a structured manner. The same will empower DISCOMs with the opportunity to break even in the next 2-3 years. Under the scheme, the DISCOMs debts have been identified as the contingent liabilities of the States. State's borrowing against the 75% outstanding debt would be outside FRBM limits."

6.4 The Committee was informed that no budgetary provision has been for this scheme as there is no financial implication on the part of the Government of India.

6.5 When the Committee asked for the details of the States which have opted for to the scheme, the Ministry in their written reply have stated as under:

> "So far, **Twenty States** (Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, J&K, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh & Uttarakhand) and **one Union Territory** of Puducherry have signed the Memorandum of Understanding (MoU) with the Government of India under UDAY**.** In addition to the above,

discussions on UDAY MoU are underway with few other States-like Sikkim, Mizoram, Kerala who have shown interest to join UDAY scheme."

6.6 In regard to memorandum signed with these States the Ministry have stated that constituents have generally signed the MoU as per Templates prepared by the Ministry of Power in line with the approval of the scheme by the Cabinet. However, certain exceptions have been allowed to a few States in terms of extension of time line for achievement of certain operational parameters as per request and conditions of the concerned state to meet their specific requirement after duly examining the issue and keeping it within the contours of the scheme.

6.7 When the Committee desired to know which States have not joined this scheme and why, the Ministry have replied as under:

> "West Bengal, Odisha, Kerala and a few small North Eastern states have not joined the scheme so far. In case of West Bengal, the DISCOM of the State is not in financial stress and has asked for major changes in the structure of the scheme, which are not feasible. Odisha has Private owned DISCOMS, currently being administered by a Government Officer as adjudicated by the State Regulator. While the State had expressed willingness to join UDAY, the applicability of UDAY in case of Odisha is under examination. Discussions are going on with Kerala, Mizoram and Meghalaya to freeze the MoU parameters as per provision of the scheme. Once the issues are resolved, the States are expected to join UDAY scheme."

6.8 The Committee have been informed that UDAY is an optional scheme for State owned distribution utilities without any compulsion for joining the scheme. Ministry is convincing the States to join UDAY by way of explaining about the long term benefits of the scheme in accomplishing the all-round improvement of the distribution utilities of the states in particular and entire power sector of the country, in general.

6.9 When the Committee desired to know as to how it will ensure that the states once opt for this scheme are compelled to implement this scheme in its letter & spirit? Please cite the relevant provisions of the scheme, the Ministry in their written reply have stated

The implementation and progress monitoring framework of UDAY has been planned as under:

- For overall monitoring of the Scheme, three tier monitoring committees at DISCOMs level, State level & Central level have been constituted with defined roles & responsibilities;
  - **Level-1 : DISCOM level Monitoring Committee** - Headed by CMD/MD of Discoms. It is envisaged that activities and the progress under the scheme shall closely be monitored by the head of DISCOMs in detail at least once in a month and ensure resolving the DISCOMs specific and local issues, if any;
  - **Level-2: State level Monitoring Committee** - Headed by CS/ ACS/ Principal Secretary-Energy/Power. Most of the states have already constituted the State level committees under the scheme. This committee is expected to conduct monthly meeting to monitor the implementation of the scheme in the state as a whole and to resolve state specific issues, if any, including the state GENCOs & TRANSCOs;
  - **Level-3: Central level Monitoring Committee** – Consisting of inter-ministerial/organizational representative and headed by the Secretary (Power), GoI. The constituted committee has been meeting at reasonable intervals to discuss & resolve various issues coming up related to implementation of the scheme. So far 3 meetings of the Monitoring Committee have been held under the chairmanship of the Secretary (Power), GoI.
- State/Discoms have to prepare the detailed Action Plan, showing the activity wise comprehensive roadmap for achieving the objectives. All the states except J&K and Uttarakhand have submitted the action plan.
- Similarly, every DISCOM/ State has to appoint a nodal officer under the scheme for better and smooth co-ordination of all the activities of the scheme. All the states have already appointed the nodal officers.
- In addition to the above monitoring mechanism, the scheme is also being periodically monitored in the monthly Review, Planning & Monitoring Meeting (RPMs), by the Honb'le Minister of State (I/C) for Power/Coal /New and Renewable Energy and Mines as well as at the PMO level.

6.10 When the Committee asked for the information on tangible improvements/attainment of desired goal so far due to implementation of UDAY, the Ministry have furnished the following information:

> "DISCOMs debt of around Rs.1,84,000 crore has already been taken over by the states. Hence to that extent the benefits to DISCOMs by way of savings in interest and increase in cash flow has been achieved.

PROGRESS IN FEW CRUCIAL UDAY PARAMETERS:

			Progress of Current FY (H1 of 2016-17)			
Sl.No	**Parameter**	**Unit**	**Target**	**Achievement**	**% achievement**	**Remarks**
1	Feeder Metering (Rural)	(In no.)	5203	2743	53%	Depicts data of 16 states
2	Feeder Meter(Urban)	(In no.)	660	773	117%	Depicts data of 16 States
3	DT metering (Urban)	(In no.)	57372	27332	48%	Depicts data of 15 States
5	Domestic Connections	(In Lacs)	21.53	26.24	122%	Depicts data of 15 States
6	UJALA	(In Lacs)	471.08	664.47	141%	Depicts data of 16 States
7	Rural Feeder Audit	(In no.)	39295	44070	112%	Depicts data of 15 States
8	Feeder Improvement	(In no.)	29014	17524	60%	Depicts data of 14 States
9	Street Light LED	(In no.)	466020	358947	77%	Depicts data of 7 States
10	Name Shame campaign	(In no.)	10803	16230	150%	Depicts data of 11 States
11	Feeder Segregation	(In no.)	2371	310	13%	Depicts data of 3 States

6.11 When the Committee asked for the list of States/Discoms participation in UDAY scheme and the details of their yearly dues as well as the cumulative dues, the Ministry have furnished the information which is in **Annexure VII.**

6.12 When the Committee asked for the provisions or efforts the Central Government that provides that they are not / will not be a mere observer in this Scheme but will be an active participant, the Ministry in its written reply stated as under:

> "The Scheme has been launched by the Ministry of Power, Government of India keeping a considerable responsiveness to hand hold the States/ Discoms to achieve the goal envisaged under the Scheme. As per provision under the Scheme, Central Government shall assist the State through the following:
> 1. Government of India will not include the debt taken over by the States as per the above scheme in the calculation of fiscal deficit of respective States in the financial years 2015-16 and 2016-17.
> 2. Facilitating State Government to take over 75% of the outstanding debt of the Discoms as on 30th September, 2015 in the financial year 2015-16 and 2016-17;
> Facilitating Banks / FIs not to levy any prepayment charge on the DISCOM debt. Banks / FIs shall waive off any unpaid overdue interest and penal interest on the DISCOM debt and refund / adjust any such overdue / penal interest paid since 1st October 2013. 75% of DISCOM debt as on 30th September 2015, as reduced by any waivers by Banks / FIs shall be converted by the Banks / FIs into loans or bonds with interest rate not more than the bank's base rate plus 0.1%. Alternatively, this debt maybe fully or partly issued by the DISCOM as State guaranteed DISCOM bonds at the prevailing market rates which shall be equal to or less than bank base rate plus 0.1%;
> 3. Facilitating the state to get additional and priority funding through DDUGJY, IPDS and PSDF and /or other such schemes of MoP and MNRE as outlined in the scheme;
> 4. Facilitating through Ministry of Coal, increase in supply of domestic coal to existing and up-coming State Power Generating plants in the state;
> Ensuring rationalization of coal linkages;
> 5. Liberally allowing coal swaps from inefficient plants to efficient plants and from plant situated away from mines to pithead plants;
> Rationalizing coal prices based on Gross Calorific Value (GCV);

6. Ensuring correction of coal grade slippages through re-assessment of each mine;
7. Directing Coal India to supply 100% washed coal for G10 Grade and above by 1st October 2018;
8. Ensuring supply of 100% crushed coal from Coal India by 1st April 2016; Faster completion of ISTN lines;
9. Allocating linkages to State at notified price based on which the State will go for tariff-based bidding. This shall help in getting cheaper power and revive stressed assets.

Moreover, Central Government, through Central level Monitoring Committee, is regularly reviewing the scheme with the States for progress as well as resolving the issues / hindrances coming up during the implementations of the Scheme."

VII. DEVELOPMENT OF POWER SECTOR

7.1 The details of the total installed power generation capacity in the country as on 28.02.2016 is given as under:

(in MW)

Sector	Mode wise breakup							Total
	Thermal				Nuclear	Hydro (Renewable)	RES (MNRE)	
	Coal	Gas	Diesel	Total				
Central	51930.00	7490.83	0.00	59420.83	5780.00	11651.43	0.01	76852.27
State	64195.50	7257.95	363.93	71817.38	0.00	29418.00	1976.90	103212.28
Private Sector	72362.38	10580.60	473.70	83416.68	0.00	3120.00	48041.09	134577.77
Total	188487.88	25329.38	837.63	214654.89	5780.00	44189.43	50018.00	314642.32

7.2 Power Supply position vis-à-vis the total demand in the country during the last five years is tabulated below:-

Energy

Year	Requirement	Availability	Shortage	
	(BU)	(BU)	(BU)	(%)
2011-12	937.2	857.9	79.3	8.5
2012-13	995.6	908.7	86.9	8.7
2013-14	1,002.0	959.6	42.4	4.2
2014-15	1,068.9	1,030.8	38.1	3.6
2015-16	1,114.4	1,090.9	23.6	2.1
2016-17 (upto Dec)	864.9	858.8	6.1	0.7

Peak

Year	Demand	Met	Shortage	
	(MW)	(MW)	(MW)	%
2011-12	130,006	116,191	13,815	10.6
2012-13	135,453	123,294	12,159	9.0
2013-14	135,918	129,815	6,103	4.5
2014-15	148,166	141,160	7,006	4.7
2015-16	153,366	148,463	4,903	3.2
2016-17 (upto Dec)	159,542	156,934	2,608	1.6

7.3 When the Committee desired to know the anticipated power demand and supply position after five years from now and the steps being taken to ensure that the demands are fully met, the Ministry in their written reply have stated as under:

> "As per the draft 19th EPS, the peak demand and energy demand during 2021-22 have been estimated as 225 GW and 1566 BU respectively. As per the information available in CEA conventional generation capacity totaling to 71136 MW (thermal -51218.5 MW , Hydro 12217.5 MW, Nuclear 7700 MW) are at various stages of construction and likely to benefit by 2021-22. In addition, Government of India has set a target of 175 GW capacity from renewable Energy Sources by 2022.With this capacity addition, it is expected that the demand of 2021-22 would be fully met."

7.4 When the desired to know the Plant Load Factors (PLF) of power generating units the Ministry have furnished information which is given at -**Annexure VIII.**

7.5 When the Committee raised the issue of low Plant Load Factors (PLF) of thermal power stations in the country, the Secretary, Power explained as under:

> "PLF is coming down below 60 per cent. If we look at the power sector in a short term scenario, PLF becomes very relevant. We are operating at 80 per cent, or 90 per cent; some individual units used to operate close to 100 per cent. But as I mentioned earlier, today we have a scenario where we have got sufficient capacity. So, PLF per se, cannot be the indicating factor of the health of the power sector. One can always debate whether this excess capacity available in the system is good or not. But my submission to the Hon. Committee is follows. The renewable energy is coming into the system in large measure and we are on track to achieve our target of 175 gigawatt by 2022. There is already more than 200 gigawatt of coal based capacity available. We have limited availability of the hydro power capacity and most of the capacity again gets involved in water related issues. About 25,000 MW gas-based power plants which are there are largely stranded because the cost of the gas is so much that as on today it does not make economic sense to generate power from it and sell because nobody will buy it. As I mentioned earlier, because of the steps that the Government of India has taken, the general power price in the market is low. Also, the combined cycle gas plant is not easy to use for flexible operation though there is a school of thought which says it

is possible, but it has a cost. In that background, what we are saying is that as on today, we are looking at using thermal capacity for balancing the grid and that PLF will remain at 60 per cent on an average or as has been studied in the report of CEA that it could also come down at some point of time to 50 per cent."

7.6 The representatives of the Ministry of Power further added:

"Generation of Solar and Wind energy is very in-form generation. Whenever there is sun, there is wind, generation will be there. When there is no sun and no wind, there will be no generation. There is issue of intermittency also. Even at the time of generation, its volume keeps fluctuating up and down. To address this problem, other generation source viz. thermal, hydro and other balancing capacity, vary their generation. Due to this adjustment in their utilization their PLF falls. When it varies, PLF comes down as per utilization factor. As per our estimation, if this situation persists, the PLF of thermal power can fall to 50% or even lower by the year 2022. But there will be solution to this problem as we have full capacity of balancing capacity. We would be able to tackle intermittency and in from generation. Therefore, there will not be any problem."

7.7 When the Committee raised the issue of proposed energy security for the development of the economy of the country and desired to know the present per capita energy consumption in the country as compared to the developed nations and the future requirements after five years from now, the Ministry in their written reply have furnished the information as under:

"The per person energy consumption in the country during the year 2015-16 was 1075 kwh. A comparative statement showing per capita consumption of developed countries along with India for the last three years (2011, 2012 & 2013) is given below:

PER CAPITA ELECTRICITY CONSUMPTION OF VARIOUS DEVELOPED COUNTRIES IN 2012 & 2013							
	Per Capita Consumption (kWh)						
Sl. No.	**Name of the Country**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
1	Canada	16406	15558	15520	N.A.	N.A.	N.A.
2	USA	13227	12947	12987	N.A.	N.A.	N.A.

3	Australia	10514	10218	10067	N.A.	N.A.	N.A.
4	Japan	7847	7753	7836	N.A.	N.A.	N.A.
5	France	7318	7367	7382	N.A.	N.A.	N.A.
6	Germany	7083	7138	7022	N.A.	N.A.	N.A.
7	Korea	10162	10346	10428	N.A.	N.A.	N.A.
8	UK	5518	5452	5409	N.A.	N.A.	N.A.
9	Russia	6533	6602	6562	N.A.	N.A.	N.A.
10	Italy	5393	5277	5124	N.A.	N.A.	N.A.
11	South Africa	4694	4410	4328	N.A.	N.A.	N.A.
12	Brazil	2441	2509	2583	N.A.	N.A.	N.A.
13	China	3298	3475	3766	N.A.	N.A.	N.A.
14	**India***	**819**	**884**	**914**	**957**	**1010**	**1075**
15	World	2933	2972	3026	N.A.	N.A.	N.A.
Note :-							
Basic data obtained from IEA Website (except) India.							
* 1. Per Capita Consumption= (Gross Electrical Energy Availability/Midyear Population).							
2. Based on Financial Year basis.							

7.8 It was stated that world average of per capital consumption is 3,026 kWh. It has been further stated that per capita consumption targets for 2016-17 in India is 1133 kWh. Assessment for per capita consumption during 2017-18 to 2021-22 is 1276, 1372, 1473, 1568 & 1668 kWh respectively. The electricity Demand of the country is periodically assessed by Electric Power Survey Committee (EPSC), taking into account the actual electricity demand incident on the system in the past years, various policies and programmes of the Government, various developmental activities planned for future, etc,. The latest electricity demand forecast report is the 19th Electric Power Survey of India. As per 19th Electric Power Survey (EPS) Report brought out by Central Electricity Authority, the Electric Energy Requirement (EER) of the country for year 2016-17, 2021-22 & 2026-27 is given below:

Year	Electrical Energy Requirement (MU)
2016-17	1160429
2021-22	1566023
2026-27	2047434

7.9 When the Committee asked whether there has been any study done in regard to assessment of the minimum units of electricity that a typical person/household requires for a fair living and also how many households of the country are still deprived of that minimum electricity, the Ministry have replied as under:

> "The minimum units of requirements electrical energy (as aspiration values of consumption) of Rural and Urban Households has been assessed during 2014-15 to 2016-17 in the State/UT specific documents for providing 24x7 Power For All (PFA) to all households/homes, industrial & commercial consumers and adequate supply of power to agricultural consumer subject to as per State Policy. These targeted values are for 24x7 power supply basis and with the fulfillment of the aim of ensuring uninterrupted supply of quality power to existing consumers and providing access to electricity to all unconnected consumers by 2019 in a phased manner. As on 09-01-2017, 35 states/UTs (except Uttar Pradesh) have signed these Documents with Ministry of Power. As per census 2011, there were about 8.08 crore households in the country that are not having grid connected electric supply."

7.10 When the Committee pointed out that due to massive generation capacity addition in recent times power plants are running way below their optimum capacity due to low demand of power, however, on the other hand there are long outages in the cities and numerous villages/households in the country which are deprived of electricity and desired the efforts which are being made to address this contradictory situation, the Ministry in their written reply has stated as under:

> "Following measures taken by Government of India under various initiatives would help better utilization of power generation capacity.

(1) Government of India have taken a joint initiative with respective State Governments for preparation of State specific documents for providing 24x7 Power For All (PFA) to all households/homes, industrial & commercial consumers and adequate supply of power to agricultural consumer as per State Policy. This initiative aims at ensuring uninterrupted supply of quality power to existing consumers and providing access to electricity to all unconnected consumers by 2019 in a phased manner. 35 State/UTs (except Uttar Pradesh) have signed the PFA documents as on 09-01-2017. In these Documents the requirement for 24x7 power supply has been assessed to all the existing consumers (except agriculture) and also to the estimated un-electrified households of 5.15 crores. The demands to all these consumers have been assessed in consultation with States/UTs from the existing Thermal Power Plants at the operating level and also from the upcoming projects by 2019.

(2) Achieving household electrification/village electrification under DDUGJY May 2018 and providing 24x7 power supply to all consumers by 2019 in phased manner.

(3) Completion of strengthening & augmentation of sub-transmission and distribution system in rural & urban areas under central schemes viz. DDUGJY and IPDS being implemented by various States.

(4) Completion of segregation of feeders into agriculture and non-agriculture feed resunder DDUGJY scheme."

7.11 On being asked by the Committee information regarding tariff details of PPA undertaking during the last two years between generators and Discoms, the Ministry provided the following information:

"The information compiled on PPA of the IPPs at present does not include the information on tariff details. However, it has been planned now to seek the information on tariff details from the IPPs. Details of PPA signed between generators and beneficiaries are not available in CEA. However, the trend/range (Minimum –Maximum) for electricity generation tariff for the years 2014-15 and 2015-16 are tabulated below for thermal and hydro power stations in respect of Public and Private Sector Plants of India."

Generation tariff in India during 2014-15and 2015-16 (Rs/ kWh)

Year	Private Sector		Public Sector	
2014-15*	**Hydro (Paisa/kWh)**	**Thermal (Paisa/kWh)**	**Hydro (Paisa/kWh)**	**Thermal (Paisa/kWh)**
	178.00-401.60	212.60- 2062.52	27.69 -683.20	158.00- 3210.00
2015-16**	170.00-604.00	232.80-2544.00	15.79-4825.33	156.00-1010.14

*Data of Generation Tariff compiled from 131 utilities.
**Data of Generation Tariff compiled from 82 utilities."

7.12 On being asked by the Committee the range (minimum –maximum) of the rates of tariff i.e. Rate of Sale of Power of electricity in the year 2014-15 for Private Sector vis-à-vis Public sector, the Ministry furnished the following information:

Private Sector		Public Sector	
Hydro (Paisa/kWh)	Thermal (Paisa/kWh)	Hydro (Paisa/kWh)	Thermal (Paisa/kWh)
178.00 - 401.60	212.60 - 2062.52	27.69 - 683.20	158.00 - 3210.00

7.13 When the Committee desired to know the reasons that as to why the power tariffs are not declining, the Ministry have replied as under:

> "Coal being an essential input in coal based thermal power plants, its price has significant impact on tariff for such power plants. The coal price of imported coal is higher than the domestic coal and with the efforts of Govt. of India, the production of domestic coal has increased. The price of Domestic Coal is fixed by Coal India Ltd. The price of domestic coal was last revised in May 2016.Cost of land form very small part of capital cost of generating projects so it has no significant impact. In case of tariff fixed under Section 62 of the Act, Regulatory Commissions fix operating parameters judiciously, with sharing of benefits in case of better performance. This framework enhances efficiency progressively. In competitive bid project, inefficient plants will not be able to compete on tariff."

7.14 In regard to hydro power potential in the country it has been stated that as per reassessment studies of hydro-electric potential carried out by the Central Electricity Authority during 1978-87, the hydro power potential in terms of Installed Capacity (IC) is estimated at

1,48,701 MW out of which 1,45,320 MW of the potential consists of hydroelectric schemes having I.C. above 25 MW and 94778.7 MW is still remains to be tapped.

7.15 It has been further stated that above reassessment is still valid. However, the Government is planning to conduct Reassessment of the hydro power potential of the country. The reassessment has been necessitated due to the availability of additional hydrological, topographical and other data about upstream and downstream water usages in last 29 years (last reassessment being carried out in 1978-87). The reassessment study would be carried out taking into consideration the actual site constraints in terms of site geology, submergence and other aspects including impacts of these projects on the Environment and Forests. The study would take into account the features of the hydro schemes already developed/under different stages of development. The study is likely to be completed in a period of 2.5 years after award of work.

7.16 When the Committee asked for the details of the efforts made by the Government during the last two years to promote the development of hydro power at the desired pace and the positive effects they have yielded, the Ministry have replied as under:

> "The available information regarding the policies and efforts made by the Govt. during the last three years to promote the development of Hydro power is given below:
>
> **a) <u>Tariff Policy, 2016</u>**
>
> Govt. of India has notified the Tariff Policy, 2016 in Jan' 2016. Salient features of the policy, relevant to hydropower, are given below:
>
> - Intent of Govt. for promotion of HEP emphasized in the objective of the Policy - "To promote HEP generation including PSP to provide adequate peaking reserves, reliable grid operation and integration of variable RE sources".
> - Hydropower to be excluded for estimating Solar Purchase Obligations.

- Certainty of long term PPA for minimum 60% of capacity, balance through merchant sale - Provision for extension of PPA beyond 35 years for a further period of 15 years.
- Enabling provision for suitable regulatory framework incentivizing the developers of HEPs for using long term financial instruments - in order to reduce tariff burden in the initial years.
- Depreciation – Developer shall have the option of charging lower rate of depreciation vis-à-vis the ceiling determined by CERC.
- Exemption from competitive bidding extended up to 2022.

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

c) Time bound appraisal norms have been evolved in CEA for examination of DPRs for hydro projects.

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

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

f) Regular review meetings are taken by Ministry of Power/ CEA with equipment manufacturers, State Utilities/ CPSUs/ Project developers, etc. to sort out the critical issues.Review meetings are also taken by MoP/ CEA with Border Road Organization, Ministry of Road Transport and Highways etc. to sort out the infrastructure issues. The new Tariff Policy, 2016 is likely to give push to the development of hydro projects and is likely to reduce their initial tariff. Further, other efforts of the Govt. including the Consultation Process and the time bound appraisal norms, as mentioned above, have resulted in preparation of quality DPRs and their faster clearance/ concurrence by CEA. Further, regular and vigorous monitoring by various agencies including MOP and CEA etc. has also contributed to the timely resolution of various issues. At the same time, the stalled project like Teesta-III (1200 MW) has been revived with the efforts of Govt. which has since been partially commissioned."

7.17 The Committee while emphasizing the importance of hydro power asked that why this sector cannot be given the same impetus which is being given to solar power, the Ministry replied as under:

> "So far, the development of Hydro projects (above 25 MW capacity) has been very slow in the country and a total capacity addition of just about

5181 MW has only been achieved during the current 12th plan so far as against capacity addition of about 26000 MW from renewable during the same period. Presently, a total of 45 no. of HE schemes (above 25 MW) with aggregate capacity of 12217.5 MW are under construction while 44 no. of HE schemes (above 25 MW) with aggregate capacity of 26160 MW have been concurred by CEA. Over the years, the hydro projects are becoming increasingly costlier mainly due to increased costs associated with environment and R&R. As such, it is desirable that hydro projects are developed at the earliest addressing environmental and R&R issues."

7.18 In regard to barriers in development of hydro power plants and efforts of the Government to promote it, the representative of the Ministry of Power deposed before the Committee as under:

"As of now, we have 13,000 MW of capacity which is stranded because of various reasons like court cases, environmental issues, R&R point issues, inter-state issues, etc., but particularly the other very important thing which has been pointed out by the Secretary is that at the moment the hydro power is not competitive enough also they are not being in a way compensated for the environmental services even though it is a zero emission and zero carbon pollution power. However, we have to compete with all other conventional sources of power. If tariff goes beyond five rupees there are hardly any takers for Hydro Power, at the moment there are no takers for long-term PPAs and that is happening. There is a long gestation period. The cost is also high per megawatt. So, on the one hand while we have to absorb the high cost by implementing projects in a timely manner, the other important thing is we have to make it more competitive and bring the tariff at par with thermal and other sources. In the tariff policy of year 2016, some provisions have been made to promote hydro. They were supposed to have RPO obligations earlier. Now, they are free from that. For long tenure loans, we have discussed with financial institutions like PFC and REC. These steps therefore will help to marginally reduce the costs but somehow we will have to get them cheaper credit at the moment the average cost is 12 per cent to 13 per cent. If we can bring it down to 8 per cent to 9 per cent, the tariffs are likely to come down to Rupees five or below five. So, we have been working on two or three counts. We are saying that hydro should be treated on a par with renewable energy. In most of the countries, it is treated so because it has no emissions practically. Once we treat them on par with Renewable Energy, the benefits which flow to that sector would also flow to the hydro sector thereby it would be provided concessions in terms of taxation and duties and also the cost of capital would get

subvention support. If we can sub-vent a part of their capital cost, tariff will come down and it would become more competitive. We are working on it and are hopeful of it. We propose to have a total hydro capacity of 75 gigawatts by 2030. Now, we have around 42,000 MW installed. We talk about it in terms of adding another 30,000 MW in next 12 to 13 years. It will be an achievable target provided we give some handholding to this sector. We have constituted an expert committee. That committee's report is with us and we are processing it. In the near future, very soon we intend taking it to the Cabinet."

VIII. COAL FOR POWER PLANTS

8.1 The Committee was informed that with the enhanced supply of domestic coal, coal supply to power plants has been comfortable during recent years. The coal stock at the power plants in the beginning of 2016-17 (as on 1st April, 2016) was more than 38 MT which was sufficient for operation of power plants for 27 days. The details of coal despatch and consumption of coal by power plants during 2013-14, 2014-15, 2015-16 and 2016-17 (Apr to Dec'16) are given below:

Year	Coal Despatch (MT)	Coal Consumption(MT)
2013-14	498.1	489.4
2014-15	554.3	530.4
2015-16	574.4	545.9
2016-17 (Apr to Dec'16)	415.5	429.4

Note: Figures include domestic as well as imported coal.

8.2 When the Committee asked for the details of the power plants which have PLF less than 60% due to shortage of coal, the Ministry have furnished the following information:

> "The generation loss due to shortage of coal in the power plants which have PLF less than 60% in the last three years are as under:
>
> **Year: 2013-14:**

Name of TPS	Capacity (MW)	Generation Loss (MU)	PLF (%)
Parli	1130	596.8	34.28
Chandrapur	2340	52.4	53.67
Bhusawal	1420	6.5	53.26
Koradi	1040	148.8	26.46
Ennore	450	19.14	30.61
Durgapur steel	1000	546	50
Kodarma	1000	194	48.94
Vallur	1500	983	54.67

Year:2014-15:

Name of TPS	Capacity (MW)	Generation Loss (MU)	PLF (%)
Mouda	1320	115.0	26.38
Badarpur	705	84.0	53.13
Ennore	450	2.4	15.77

Year: 2015-16 & 2016-17: There was no generation loss due to shortage of coal in the plants having PLF less than 60% in the year 2015-16 and 2016-17."

8.3 In regard to year-wise estimated requirement of the coal by the power utilities during the 12th Plan, the Ministry have furnished the following information:

Year	**Estimated Coal Requirement (MT)**
2012-13	500
2013-14	548
2014-15	594
2015-16	611
2016-17 (Apr-Dec, 2016)	600

*: Figures include domestic as well as imported coal.

8.4 When the Committee asked whether the Coal India has supplied the required coal or there was a shortage the Ministry have replied as under:

> "Coal is supplied to the power plants based on their estimated requirements. There was substantial loss of generation due to shortage of coal in the years 2013-14 and 2014-15 which has reduced to nil in the year 2015-16 and negligible in 2016-17 (Apr-Dec 16). Power utilities have reported generation loss due to shortage of coal as per detailed below:"

Year	**Generation Loss (MU)**
2013-14	8100
2014-15	2700
2015-16	0
2016-17 (Apr-Dec, 2016)	484

8.5 When the Committee desired to know the amount of coal imported due to deficiency in supply of coal by the Coal India, the Ministry have replied as under:

> "Power utilities imported coal to bridge the shortfall in the availability of domestic coal as well as to meet the requirement of coal for power generation in the power plants designed on imported coal. The details of coal imported for blending with the domestic coal is as under:
>
> | Year | Import of Coal for blending (MT) |
> |---|---|
> | 2012-13 | 31.6 |
> | 2013-14 | 37.8 |
> | 2014-15 | 48.5 |
> | 2015-16 | 37.1 |
> | 2016-17 (April to December, 2016) | 15.3 |
>
> With the concerted efforts of Ministry of Power/Ministry of Coal, domestic coal availability in the power plants has been improved, as a result, the import of coal by power plants required for blending with domestic coal has declined since 2014-15."

8.6 Often it has been stated that due to poor quality of indigenous coal power plants import coal. When the Committee desired to know the efforts made to improve the quality of indigenous coal supplied to the power plants, the Ministry have replied as under:

> "In order to address quality issues of the coal supplied to power plants, it has been decided by the Ministry of Power on 28.10.2015 that coal samples shall be collected and prepared by a Single Third Party Agency appointed by power utilities and coal companies. It has also been decided on 16.05.2016 by MoP that the Third Party Sampling at unloading-end may also be carried out by Central Institute of Mining and Fuel Research (CIMFR). To comply with the guidelines issued by the Ministry of Environment & Forests dated 2nd January, 2014 regarding transportation of coal to the power plants located beyond 500 kms, coal is washed to reduce the ash content below 34%."

8.7 NTPC has total six coal blocks allotted to it, namely Pakri-Barwadih, Chatti-Bariatu, Kerandari, Dulanga, Talaipalli and Chatti-Bariatu (South), Banai, Bhalumunda and Mandakini B.

On being asked by the Committee the Ministry have stated the following reasons for delay in development of captive coal mines allocated to NTPC:

> "There was no delay on part of NTPC for development of these coal blocks.NTPC, as a coal block allottee, has taken all required actions, in time, for undertaking various block development activities. Statutory approvals from various agencies, site specific studies, and activities, which were in NTPC's control, progressed well in all coal mining projects. Statutory clearances / approvals e.g. Environment & Forest clearances, Mining Plan approval, land acquisition notifications & verification / certification processes, Approval of R&R plan, etc., which are beyond NTPC's control, took longer time. In addition, block development activities had to be kept suspended due to cancellation of allocation of blocks by Honb'le Supreme Court of India, 'No-Go', etc.In case of Pakri-Barwadih coal block (located in Hazaribagh District, Jharkhand), which is in advanced stage for start of mining operations, block development activities / work progress were hampered mainly because of the following:
> 1. Adverse law & order situation at project site.
> 2. Slow disbursement of private land compensation under LA act and slow processing of proposals for land acquisition / Government land transfer by District Administration.
> 3. Absence of policy of State Government regarding squatters on forest land and on Government land for less than 30 years
> 4. Non-performance of the MDO contract, awarded earlier to M/s. Thiess Minecs for development and operation of this coal block. Ultimately, NTPC had to terminate the contract and has appointed a new MDO.
>
> However, with the support of State Government and Hazaribagh District Administration, situation is presently under control and mining operations are under progress."

8.8 In regard to proposed timeline to develop these allocated mines, it was stated that these mines are proposed to be developed progressively from 2016-17 onwards based on availability of all statutory clearances, appointment of MDO and as per the stipulations of respective MDO Project Agreements.

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Part – II

Observations/ Recommendations of the Committee

Annual Plan Outlay

2.1 The Committee note that the Ministry of Power had sought Rs. 22,769.39 crore from the Ministry of Finance for the year 2017-18, however, it has been allocated Rs. 13,881 crore. Against the demand of Rs. 6,010.11 crore, Indian Power Development Scheme (IPDS) has been allocated Rs. 5,821.22 crore. Energy conservation has been allocated only Rs. 5,054 crore against the demand of Rs. 332.86 crore. Similarly, Central Power Research Institute (CPRI)'s demand of Rs. 250 crore has been reduced to Rs. 150 crore. Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), the most important scheme of the Ministry of Power, has suffered the most severe cut and allocated only Rs. 4,841 crore against the demand of Rs. 12,602 crore. The Committee are concerned over the severe budgetary cut in important programmes of the Ministry of Power in general and DDUGJY in particular. When the Government is committed to provide electricity access to all the households of the country and 24x7 uninterrupted power supply, these huge budgetary cuts appear neither logical nor justified. The Committee do understand the constraints of limited finance resources of the Government, nonetheless, important sector should get adequate fund. At present, power sector is most crucial sector, which is slowly but surely passing through transition period of energy deficiency to energy sufficiency and universal electricity access. However, when the

Committee scrutinized the current year's demand, it found that in previous year also the Ministry of Power had posted a demand of Rs. 31,519.84 crore, which was reduced to Rs. 12,200 crore by the Ministry of Finance. However, even this truncated allocation was reduced at the stage of RE Rs. 10,413.66. And finally, only Rs. 7,259.32 crore were utilized till 30.01.2017. The reduction of budget at RE stage indicates that the Ministry was not prepared to utilize even the fund that was allocated to them. The Committee, therefore, infer that the budgetary cut by the Ministry of Power was based on the previous year's utilization of fund by the Ministry of Power and not on any priority. Nonetheless, the Committee strongly recommend that the Ministry of Finance should allocate additional fund at the stage of RE, if the Ministry of Power demands so. Simultaneously, the Committee also recommend the Ministry of Power to try and utilize the fund allocated as per their original demand and schedule so that not only the fund are fully utilized but targets under various schemes are also achieved.

(Recommendation Sl. No. 1, Para 2.1)

2.2 The Committee note that during the year 2016-17, some important heads have very poor utilization of fund. NEEPCO, against their budgetary estimation of Rs. 166.13 crore, they could spend nothing. Similarly, no fund could be utilized under the head of strengthening transmission system in the States of Arunachal Pradesh and Sikkim and Power System Improvement Project in North-East Region.

Very less utilization of fund took place under the Heads of CPRI, Energy Conversation, Integrated Power Development Scheme and PSDF. The poor utilization of fund by NEEPCO, a CPSU engaged in development of hydro power projects, is also a cause for concern despite the fact that for the 12th Plan period they have exceeded the target. CPRI Energy Conservation and Efficiency Programme help in mitigating the burden of higher tariff by lowering electricity consumption through technological advancements and other methods. IPDS, PSDF Transmission System and Power System Improvement are equally important. The Committee, therefore, express their concern over the poor utilization of fund under these heads during the current year. Considering the importance of these programmes, the Committee recommend that the Ministry should ensure that the fund allocated to them this year, i.e., 2017-18 are not only fully utilized but efforts should be made to clear backlog of previous year.

(Recommendation Sl. No. 2, Para 2.2)

12th Five Year Plan

2.3 The Committee note that an outlay of Rs.4,40,795.84 crore was allocated for the 12th Plan period. Rs.3,86,516.68 crore were Internal and Extra-Budgetary Resources (IEBR) from the above allocation. The IEBR was to be raised by CPSUs themselves. The 12th Plan period is on its way out and the performances of the most of the CPSUs have been very poor in achieving their financial targets. The NTPC could achieve only Rs.1,10,232 crore against the target of Rs.2,19,612 crore.

Similarly, the performance of NHPC was only Rs.13,853 crore against the target of Rs.29,368 crore. THDC could achieve Rs.3,464 crore against the target of Rs.7,298 crore, whereas, SJVNL achieved Rs.3,372 crore against the target of Rs.10,400 crore. Only the performance of Power Grid is praise-worthy as they not only achieved the financial target, but also exceeded it. Similarly, the performance of NEEPCO has also been commendable. In all, the CPSUs are the best equipped organizations in the electricity sector. This kind of performance from them cannot be justified for any reasons whatsoever. The Committee, therefore, strongly recommend that :-

(i) The reasons for failure of CPSUs in achieving the assigned targets during the 12th Five Year Plan should be explained PSU-wise.

(ii) Steps should be taken to avoid recurrence of reasons responsible for decline in the performance of the CPSUs.

(iii) Responsibility for non-achieving the target should also be fixed as the entire tenure of five years is a sufficient period for showing results and any laxity in performance in a year can be overcome during the next year with dedication and sincerity.

(Recommendation Sl. No. 3, Para 2.3)

2.4 The Committee note that a target of 88,537 MW has been fixed for capacity addition during the 12th Plan Period. The Committee are glad to note that against

this target, a generation capacity to the tune of 93,535.47 MW, have already been installed in the country. Due to this massive capacity addition and overachieving of targets, the country has moved from power deficiency to power sufficiency. However, the fact that disturbs the Committee are the poor performance of CPSUs and non-achievement of targets by them. For the entire Plan, they had been assigned the target of 26,182 MW, however, they could add only 17,047.62 MW capacity during the period. Their poor performance becomes more conspicuous when we juxtapose it with that of States and Private Sector which have done exceptionally well. Both the sectors have exceeded their targets by big margins. The Committee believe that for the proper development of power sector, the contribution of all the three sectors i.e. Central, State and Private Sectors should be as assigned and they should compete with one another in outdoing. The role of Central Sector in providing electricity at lower tariff is still indispensable. In view of this the justification that it does not matter as long as overall capacity addition targets are achieved, is not convincing. The Committee feel that the present crisis of higher tariff and low PLF of thermal plants could be attributed to imbalance in the share of capacity addition among the three sectors. The Committee, therefore, strongly recommend that the performances of CPSUs be improved by making all the possible efforts. It is not the first time that the Central Sector has performed poorly. Their performance even during the 11th Plan has equally been poor, which led to slippage of projects of 21,654 MW capacity into 12th Plan. Therefore, the Central Sector, during the 12th Plan period, could not complete even their projects

that slipped from 11th to 12th Plan. Despite the advantage of technical expertise, resources and manpower recurrence of non-performance by CPSUs during the last two plan periods is a cause of serious concern and Government should seriously introspect about it for effective remedial measures.

(Recommendation Sl. No. 4, Para 2.4)

Deen Dayal Upadhaya Gram Jyoti Yojana (DDUGJY)

2.5 The Committee note that the Government has approved DDUGJY with a total investment of rupees 43,033 crores in the country for feeder separation and strengthening of sub-transmission and distribution network. Rural electrification is the core activity under the scheme. Projects worth rupees 15,596 crores have been approved by the Government of India for feeder separation. As on 1st April, 2015, there were 18,452 un-electrified villages in the country. Till 31st January, 2017, 11,941 villages have been electrified and the electrification of the remaining villages is targeted by May, 2018. The Committee have been apprised that projects for rural electrification have been sanctioned irrespective of the population criteria. The Committee feel that the figures regarding electrification of villages need to be rechecked as far as the number of un-electrified villages are concerned. It is not a question of census villages only. As per the guidelines of the DDUGJY, all the habitations irrespective of number of population are to be electrified under the scheme. Hence, the criterion of census villages does not go well. The Committee

are apprised that figures regarding electrification of un-electrified villages are given by the State Government and in federal structure, we have to act accordingly. The Committee are aware of the Constitutional and administrative limitations. However, these limitations cannot be roadblock for depriving the people from their legitimate rights. Some mechanism will have to be evolved in consultation with the States or through suo moto action to ascertain accurate number of electrified villages. Taking the basic criteria into account of the scheme, a joint mechanism can also be thought of leaving no scope for any ambiguity with regard to number of un-electrified villages. If the status quo remains regarding electrification under the scheme, then in all likelihoods, it will become a tailspin. The Committee, therefore, strongly recommend that a fresh thinking should be given by all concerned with regard to the number of un-electrified villages in the country so that the measures under the scheme could be taken us to electrify them.

(Recommendation Sl. No. 5, Para 2.5)

2.6 The Committee note that as per the census of India, the lowest primary administrative unit is a village. However, the villages are of different sizes in terms of population depending upon the geography of area, availability of land and water, etc. Under the scheme, a village is declared as electrified if (i) basic infrastructure such as Distribution Transformer and Distribution Lines are provided in the inhabited locality as well as the Dalit Basti/ hamlet where it exists (For electrification through Non-Conventional Energy Sources a Distribution Transformer

may not be necessary) (ii) electricity is provided to public places like school, Panchayat Office, Health Centres, Dispensaries, Community Centres, etc., and (iii) the number of household electrified should be at least 10% of the total number of households in the village. Under DDUGJY, all Census villages are eligible to be covered for electrification. Although present definition envisages electrification of at least 10% households, DDUGJY scheme provides for creating access to electricity for all households. The Committee feel that the definition of the electrified village need a revisit as only 10 per cent electrification of a village makes it eligible to be declared as electrified village. Most of the small villages in the country do not have public places like schools, Panchayat Office, Health Centres, Dispensaries, Community Centre, etc. and hence are out of the ambit of the definition of electrified village. This kind of approach does not serve the purpose as the scheme aims at electrification of smallest of the village. The need for intensive electrification of partial electrified villages arises due to such discrepancies only. The repeat exercise of identical nature in the same village is nothing but wastage of time and resources. Electrification of a village should be electrification of the entire village and be not categorized as partial or intensive electrification. This kind of approach belies the basic objective of the scheme as out of 7,60,967 partial electrified villages, 4,14,487 villages have been intensively electrified during the last 3 years and thus leaving huge number of villages for intensive electrification. The Committee feel that this kind of approach should be avoided as far as definition of electrified villages are concerned. The Committee, therefore, strongly

recommend that the definition of electrified village should be amended and a village should be treated as electrified only after the 100 per cent electrification of the entire village is done. Also, the Government should contemplate to provide three phase lines in the villages which are nearing completion or yet to be electrified under the scheme.

(Recommendation Sl. No. 6, Para 2.6)

Integrated Power Development Scheme (IPDS)

2.7 The Committee note that power sector has been reeling under huge financial losses and it has placed massive burden on Union and the State Governments. Power distribution is a vital link in chain of power generation and supply. The financial health of the entire power sector depends on the financial viability of power distribution sector. With a view to affect turnaround in the sector, Government launched various schemes since 2000 and 2001 onwards. Restricted Accelerated Power Development and Reform Programme (R-APDRP) was launched in the year 2008 with a view to establish IT system for baseline data acquisition and for actual, demonstrable performance in terms of AT&C losses reduction below 15 per cent on sustainable basis. This was implemented in towns with population of more than 30,000. IPDS scheme was launched by the Government in the year 2014 to extend financial assistance against the capital expenditure to address the gap in sub-transmission and distribution network and metering in urban areas to

supplement the resources of Discoms. The component of IPDS inter alia include (i) strengthening of sub-transmission and distribution networks in the urban areas; (ii) metering of distribution transformers/ feeders/ consumers in the urban areas and (iii) IT enablement of distribution sector and strengthening of distribution network under R-APDRP for 12th and 13th Plans by carrying forward the approved outlay of R-APDRP to IPDS. All Discoms including private and State Power Departments will be eligible for financial assistance under the scheme. The Committee have been apprised that achievements under IPDS are on expected lines and in line with the annual targets. The Committee also note that funding under IPDS shall also be for completion of optical fiber missing links to connect all the 33 KV or 66 KV grid sub-stations under the establishment of National Optical Fiber Network, establishment of National Power Data hub at CEA and installation of solar panels. In the opinion of the Committee, the scheme of IPDS should have resulted in tangible AT&C loss reduction but it is yet to become a reality. As of now, the various structures of IPDS may be in course of stabilization but the areas where the network under IPDS is in place and where the experiment process is over (particularly in go-live towns), result should be started flowing in on a sustainable basis. The Committee believe that the data of the IPDS may be available in Go-live Towns and in the process of collection and analysis. The Committee, therefore, recommend that the scheme of IPDS as amended hitherto should be evaluated with regard to its performance and corrective measures may be taken if the desired results are yet to come.

(Recommendation Sl. No. 7, Para 2.7)

2.8 The Committee note that under the IPDS scheme projects worth Rs. 25,880 crores have been sanctioned for 3,597 towns in 537 circles. Power Utilities have placed award for 189 circles and all circles are likely to be awarded by March, 2018 and the execution is likely to be completed within 24 months of the award. The Committee have also been apprised that there has been immense improvement in urban areas including metering progressively and AT&C losses are likely to reduce from financial year 2019-20. It has also been stated that reduction of AT&C losses in different utilities are likely to be different due to terrain, nature of loan and consumer mix. Utilities have signed tripartite agreement with Central and State Governments and 44 utilities have appointed Project Management Agencies. Standard bidding document for implementing the IPDS projects has also been released. Under IPDS, the aim of reduction of Discom-wise AT&C losses is to be achieved by 2021-22 as per trajectory and the loss reduction trajectory has been finalised in consultation with all the State Governments. The Committee find the timeline for reduction in AT&C losses very flexible. The Committee are unable to comprehend about the flexibility in timeline for loss reduction. The IT equipped network established under IPDS enables us to identify the points of leakages and weaknesses. The towns which have got the network have started showing the reasons for losses. In such a situation, granting huge leverage in terms of time for loss reduction appears to be unreasonable. The Committee, therefore, recommend

that all the States should be convinced to take follow up measures urgently to plug the loopholes responsible for AT&C losses as identified by the IPDS scheme and bring it to the desired level as early as possible.

(Recommendation Sl. No. 8, Para 2.8)

2.9 The Committee note that an impact assessment study has been carried out to assess the benefit of IT implementation under IPDS. The study was conducted in 76 towns across 14 States where most of the towns have been declared Go-live covering 10 per cent of the Go-live towns and 15 per cent feeders in the selected towns. The finding has suggested AT&C loss reduction in 85 per cent of these towns and the IT system identified the loss pockets for corrective measures. In addition, the reliability of power and improved consumer services are also the outcome of the newly placed system. The Committee find that as far as the reliability of power and improved consumer services are concerned, they are welcome steps, but reduction in AT&C losses is vital component of the scheme. If this is achieved early, other steps will automatically be taken care of. It is a fact that positive impact of the scheme is beneficial to consumers as well as to Discoms. The study also suggested that improvement in AT&C losses over Baseline values in the sample 76 towns yielded annual monetary benefits of rupees 185 crores. The proportionate annual monetary benefits extrapolated on the basis of energy consumed in all towns are estimated to be about 5,000 crores. This is very significant development as the study has been carried out only in 10 per cent of

Go-live towns and 15 per cent of the feeders in selected towns. If this is taken to be the trend and basis for computation, then the results will be phenomenal. The Committee have also been apprised that a study has been taken up on segregation of commercial losses from overall AT&C losses in 10 pilot towns. The Committee are aware that electricity is in Concurrent domain and a lot needs to be done by the States in this sector. Nonetheless, it is also a fact that loss reduction trajectory has been decided in consultation with the States and towns which has been declared Go-live and where IT enabled system is being established spreading all across the country. Hence, no laxity can be permitted in the name of governance issue as far as IPDS is concerned. The system once established is capable of giving accurate data regarding leakages and losses and hence there is no scope whatsoever for any complacency in this regard. Segregation of commercial losses from overall AT&C losses will give a further fillip to our efforts in fixing the loopholes. The Committee, therefore, strongly recommend that there should be no letup in our efforts as far as implementation of the IPDS is concerned. Concerted and coordinated efforts from all the concerned should be the hallmark for fulfillment of the objectives under the scheme.

(Recommendation Sl. No. 9, Para 2.9)

Ujjawal Discoms Assurance Yojana (UDAY)

2.10 The Committee note that UDAY has been launched with the objective to provide a sustainable financial and operational turnaround of Discoms making

available permanent solutions to legacy debts and also to address potential future losses. It aims at empowering distribution companies with the opportunity to achieve breakeven in the next few years through certain initiatives. The initiatives inter alia include operational efficiency, importance to reduce average AT&C losses and elimination of gap between ACS and ARR by 2018-19. It also envisages increased supply of cheaper domestic coal, rationalizing coal linkages, liberal coal sweeping, coal price rationalisation based on GCV, supply of washed and crushed coal, etc. The Committee feel that these are the welcome measures and will greatly enhance the efficiency of the power sector. The Committee are also aware that power is a Concurrent Subject and it is the States which have to shoulder the responsibility with sincerity to offset their regulatory assets. Union Government can only be the Friend, Philosopher and Guide in pursuit of their goal for liquidity of arrears accumulated over the years by the Discoms. The Government of India have devised a strategy after careful consideration of every aspect involved in the process. It is for the State Government to cooperate and seek guidance of the Union Government in case of any difficulties in implementing such an emancipating scheme, i.e., UDAY. The Committee, therefore, recommend that every effort should be made to prompt the States to show the results by performing as per the structure of the scheme so that the electricity sector as a whole is brought out from the present dire state of affairs.

(Recommendation Sl. No. 10, Para 2.10)

2.11 The Committee note that the financial turnaround of the distribution companies under UDAY has been envisaged after careful consideration of the nitty-gritty involved therein. Under the scheme, States will take over 75 per cent of the Discom debt as on 30 September, 2015 over two years of which 50 per cent will be taken over in the year 2015-16 and 25 percent in the year 2016-17 respectively. It will also entail the reduction of interest on the debt taken over by the States to around 8 - 9 per cent from 14 to 15 per cent. There are provisions for spreading the financial burden on States over 3 years to give flexibility in managing interest payments and incentives/ disincentives for future financial performance for the participating States. States are also to take over and fund at least 50 per cent of the future losses of Discoms in a graded manner. Such States shall also be supported with additional coal at notified price and in case of availability through higher capacity utilization, low cost power from NTPC and other Central sector PSUs. In addition, the debt of Discoms not taken over by the States shall be converted by the banks, financial institutions into loans or bond with interest rate not more than banks base rates plus 0.1 per cent. Alternately, this debt may be fully or partly issued by the Discoms as State Guaranteed Discom Bonds at the prevailing market prices which shall be equal to or less than the bank base rate plus 0.1 per cent. While lauding the concept of the scheme, the Committee also appreciate the limited scope of maneuverability available for evolving an effective strategy. Within the given limitations, the ways suggested in the scheme for financial turnaround will be helpful, if implemented with the required urgency, true

spirit and genuine intention. At some stage, the servicing of bonds will have to be done and it can only be done in a comfortable financial situation. Financial comforts can be achieved by the Discoms through rigorous discipline, sincere efforts, targeted timelines and strict implementation of the strategy. All the stakeholders will also have to display an exemplary resilience jointly and severally in fulfillment of the target. The Committee, therefore, strongly recommend and call upon all the stakeholders, i.e., State Government, Distribution Companies, Banks, Financial Institutions, Consumers, etc. to take up the issues as a mission so that the scheme become a success and distribution companies are out of woods.

(Recommendation Sl. No. 11, Para 2.11)

2.12 The Committee note that so far 20 States and one Union Territory have signed the Memorandum of Understanding (MoU) with the Government of India under UDAY. In addition, discussions on UDAY are also underway with some other States who have shown interest to join the scheme. The Committee feel that the response of the States is encouraging as even they perceive it to be a genuine effort to rectify the problem plaguing the electricity sector. Despite the fact that there is no specific budgetary provision under the scheme, yet the response of the States shows that they are looking forward to this scheme to better their prospects in the energy sector. However, there are provisions under schemes like IPDS, DDUGJY, PSDF, etc. which may act as a catalyst to perform the obligations of the UDAY.

Under the scheme, the provision of States borrowing against the 75 per cent outstanding debt would be outside FRBM limits is a great incentive. In addition, Discoms debts have been identified as the contingent liability of the States. In all, all the factors prima facie make the scheme a recipe for sustainable, financial and operational turnaround. Finding the scheme attractive, most of the States/ Discoms have submitted their action plan and all the States have appointed Nodal Officers for better and smooth coordination of all the activities under the scheme. There is three-tier monetary mechanism in addition to the one being done on monthly basis at the Ministry level. The Committee find the participation of States overwhelming which is a testimony of the scheme being acceptable to them for a smooth sailing to the desired conclusion. While commending the efforts, the Committee recommend that there should be some interactive mechanism which may suggest redressal of difficulties during the course of its implementation. This interactive mechanism may consist of stakeholders and corrective course of action, if required, may be taken based on their input while implementing the scheme. However, the timelines in this regard are of great essence and it should be ensured that they are adhered to religiously and it should not go on like DDUGJY in which case it will lose its sheen and relevance.

(Recommendation Sl. No. 12, Para 2.12)

2.13 The Committee are happy to note that States have already taken over the Discoms debt of around 1,84,000 crores under UDAY. This has led to some relief to

Discoms by way of savings in interest and increase in cash flow. This can be attributed as a positive outcome of the scheme. Certain other important features of the scheme like Feeder Metering, Domestic Connections, UJALA, Rural Feeder (Audit), etc. are showing encouraging results. However, there are other parameters like Feeder Segregation, DT Metering (Urban), Feeder improvement, Feeder Metering (Rural) are areas which need greater concentration as they are very vital for the success of the scheme. There are also States whose outstanding dues as on 31st March, 2015 are extremely high. In this category, UP has the dues of more than 21,000 crores, Maharashtra 17,952 crores, Karnataka 11,518 crores, Telangana 7,470 crores, Tamil Nadu 7,462 crores, Haryana 6,197 crores, etc. The Committee, however, have not been apprised of the latest figure for the year 2016. The Committee feel that despite dues amounting to lakhs of crores of rupees, a beginning was required to address the issue and it has been made. If implemented with sincerity, UDAY will give desired results. The Committee, therefore, recommend that the pace of the scheme need to be maintained at all costs and State Governments be alerted from time to time regarding their obligations under the scheme. Awareness campaign should also be launched about the objectives of this scheme among the masses to enable them to understand the scheme in the proper perspective and benefits which will flow from it in due course of time.

(Recommendation Sl. No. 13, Para 2.13)

Development of Power Sector

2.14 The Committee note that at present the Country has total installed power capacity of 3,14642.32 MW. They further note that as per draft 19th Electric Power Survey (EPS), the peak demand and energy demand during 2021-22 have been estimated as 225 GW and 1566 BU respectively. The Country has witnessed a massive capacity addition in the recent years and due to that it is on the verge of becoming a power surplus country. The Ministry have further assured that considering the power projects in pipeline, it is expected that the demand of 2021-22 would be fully met. The Committee also note that against the requirement of 864.9 BU, the availability of power remained 858.8 BU during the year 2016-17 (upto Dec.2016) leaving a shortage of 0.7%. In respect of peak demand, 1,56,934 MW was met against the demand of 1,59,542 MW leading to a shortage of 1.6%. The Committee are surprised that even after the massive capacity addition and huge present generation capacity, there are still shortages, though their quantum is not so significant. Secondly, in addition to these power demands there exists the latent demand that is not being taken into calculation. These figures do not include the demand that several financially distressed Discoms do not post due to their inability to purchase electricity at higher rates and instead of incurring further losses they opt for power outages. The demand calculation also does not take into account the demands of households which do not have electricity access. The Committee, therefore, while appreciating the fact that power generation sector has come a long way and now it is in a position to

cater the demand of power of the country, desire that the momentum of growing generation should be maintained to cater the increased future demand as well as the latent demand of electricity of country which is going to surface sooner than later. The Committee also recommend that the Government should encourage installation of power generation projects which are clean and green, strategically important and capable of providing electricity at lower tariff.

(Recommendation Sl. No. 14, Para 2.14)

2.15 The Committee are distressed to note that the Plant Load Factors (PLF) of thermal power plants touched a record low and dipped below 60% during the previous year. The Committee also note that there are several power plants that are running at 0-40% of PLF. The Ministry have tried to alleviate the concern of the Committee by stating that today we have a scenario where we have got sufficient capacity, so PLF per se cannot be the indicating factor of the health of the power sector. One can always debate whether this excess capacity available in the system is good or not. They have further stated that due to huge upcoming renewable energy capacity, it is possible that the PLF of thermal power plants could go as low as 50% or even below. Since solar energy will be available in the day time, so thermal power plants will have to be shut down or run at low capacity at that time. The Committee feel that this is not the desired scenario as it is known that under-utilization of power plant will only lead to higher tariff rates. The Committee do understand that setting up power stations is a de-licensed activity, so everybody is

free to install power stations as per their need or business prospect. In a free business model, it is also understood that only those power plants will survive which will be able to sell electricity at cheaper rate and thus bringing competitiveness in the market. Considering all this the Committee are astonished that despite abundance of power generation capacity in the country at present, the tariff rates have not gone down, rather there is a increasing trend in this regard. Even the technological advancement of machinery, use of super critical technology, ease in supply constraints of coal have failed to lower tariff rates. The Committee are of definite opinion that the prime reason for higher tariff is lower PLF. The Committee have been apprised that though the tariff is higher for long term PPA, electricity is available in power exchanges at much lower price. This situation encourages Discoms not to go for a long term PPA, but fulfill their demand by short term power purchase as much as possible. The Committee feel that prime-facie the situation might appear beneficial for Discoms/Power Sector but may have long term adverse consequences. The power sector seems to be trapped in a vicious cycle of low PLF causing high tariff and high tariff suppressing the demand. The Committee are concerned that if this situation persist this may lead to plethora of problems viz. shutting down of power plants due to economical un-viability, loans turning bad and further investment in the sector may be discouraged due to low returns. The Committee are in favour of promoting competition in the sector that should lead to availability of cheaper power, those who will be able to do this will survive while rest will perish. However, the Committee also desire that the Ministry

should ensure that this transition should take place without harming and discouraging further investment in the power sector.

(Recommendation Sl. No. 15, Para 2.15)

2.16 The Committee note that as per reassessment studies of hydro-electric potential carried out by the Central Electricity Authority during 1978-87, the country have the hydro power potential to the tune of 1,48,701 MW. Against this, at present, hydro power installed capacity is 44,189 MW. The Ministry have informed that hydro power projects of 12,217 MW are under construction whereas, projects having capacity of 26,160 MW have been concurred by Central Electricity Authority (CEA). The Committee also note that the development of hydro power projects have been very slow in the country and a total capacity addition of just about 5181 MW has only been achieved during the 12th Plan so far. The Ministry have admitted that over the years, the hydro projects are becoming increasingly costlier mainly due to increased costs associated with environment and Resettlement & Rehabilitation (R&R). The Committee are aware of the numerous benefits of hydro power and have been advocating for their speedy development so that their development cost could be kept to the lowest possible. The prime deterrence in development of hydro power as stated by the Ministry is its initial high tariff. Apart from this environmental issue, local protest and difficult terrains have also been enumerated as the reasons behind their slow growth. The

Committee are dismayed by these excuses for not developing hydro power sector at desired pace. All these problems were also there in the development of solar sector – be its higher tariff, requirement of vast land, etc. However, when the Government is determined to develop the sector, most of the problems got resolved. The latest tariff of solar power has now come down to below Rs. 3 levels. Considering the benefits of hydro power for the entire power sector, the Committee are astonished as why the sector has not been given the due attention so far. Apart from being a clean and green source of energy, it can be used as a balancing power for intermittent renewable power, and peeking power. The Committee strongly believe that merely focusing on solar energy without hydro power will create disturbances in power sector by adversely affecting optimum utilization of thermal power stations. The Committee, therefore, strongly recommend that every efforts should be made to develop hydro power sector expeditiously. Instead of isolated efforts there is an urgent need for a comprehensive plan for alleviating the concerns of this sector by providing long term finances at lower rate, grant of clearances in a time bound manner, development of enabling infrastructure, improving law and order situation and sensitization of local people about the benefits of projects development.

(Recommendation Sl. No. 16, Para 2.16)

2.17 The Committee note that the per capita power consumption of our country at present is 1,133 kWh which is much lower than the world average of 3,026 kWh

and incomparable when it comes to developed countries which have per capita power consumption as high as 12,947 kWh. Per capita power consumption is an indicator of overall social – economic development of a country. The reason for low per capita power consumption in our country could be attributed to absence of electricity access to millions of households in the country and suppressed demand due to higher tariff. The Committee, however, has been apprised by the Ministry that it is expected that the per capita power consumption will increase to 1,668 kWh by the year 2021-22. The Committee, considering the tremendous growth made in generation capacity, feel that now we can conveniently move in the direction of increased electricity consumption in the country. The Committee, therefore, recommend that the Government should make all the efforts that can boost the demand of power by providing electricity access to all households, bringing down tariff of electricity, etc.

(Recommendation Sl. No. 17, Para 2.17)

2.18 The Committee feel that the issues which are of vital importance and have been discussed in several meetings of the Committee also require specific response of the Government for the balanced and sustainable growth of the power sector in the country. The Committee note that as of now there are two most prevalent methods for discovering the tariff in the power sector (i) Cost Plus Tariff and (ii) Tariff by Competitive Bidding of which Cost plus system is pre-dominant. The Committee are aware that in this method coal charges consists around 70 per cent of the total cost of power for tariff determination. They are termed as energy

charges whereas rest of the tariff consist of fixed charges and other miscellaneous ingredients. The Tariff Policy as announced by the Government of India aims at promoting competitive bidding for all acquisitions in power plants and also for tariff determination through competitive bidding. Competitive bidding process ensures that the tariff determination process is reasonable, rational and competitive without any scope for latent maneuvering. The process also ensures that all the expenditure are taken into account and this is beneficial to consumer as well as to the generator. The transparency in the system also forms part of this process and thus leaving no scope for any extraneous consideration. The Committee are unable to apprehend as to why hydro sector has been kept out of its ambit particularly when the tariff policy aims to make entire system in the electricity sector competition based. There may be good reasons to exclude the hydro sector from the competitive bidding process, but there are equally genuine reasons for including it within the competitive ambit to make it efficient, transparent and delivery oriented. Several countries like United Kingdom and Brazil have taken hydro into the competitive fold and are doing excellent. The Committee, therefore, recommend that the price discovery for any kind of electricity whether thermal, hydro, renewable, etc., should be done through process of competitive bidding only.

(Recommendation Sl. No. 18, Para 2.18)

2.19 The Committee note that technological advancements are ushering in into the electricity sector to achieve higher output. The introduction of super critical technology into thermal is being considered on large scale. This is a welcome step

and it is expected that it will revolutionize the power sector of our country. However the Committee, in this regard, would like to be circumspect. Our ground realities should be taken into account before introducing this move. The availability of indigenous coal and its quality, its heat and ash content, gross calorific value and washing infrastructure should be the guidelines for introduction of super critical technology. If this is not taken into account, the price or the tariff of the electricity may be beyond the reach of the common consumers. The power sector in our country has not grown in a balanced manner and variance in pricing of electricity has led to distortion in development of the power market. Instead of demand supply gap or mismatch, it has resulted into supply-demand imbalance. Despite shortage of power in the country, demand is not being raised for electricity due to its unreasonable and unpalatable prices. Hence, the super critical technology should focus more on reasonable and competitive tariff so as to make it viable rather than introducing it with indiscretion and without evaluating the consequences. If this technology remains alien to our conditions, this will become NPA of the power sector involving huge public money and resources. The core issue for technology should be its competitive pricing in the Indian context so as to right-size the electricity sector from tariff view point as well as balanced growth. The Committee, therefore, strongly recommend that there should be advent of latest technology in the electricity sector but such technology be akin to Indian conditions with regard to availability of resources/ fuel and also for competitive power tariff.

(Recommendation Sl. No. 19, Para 2.19)

Coal for Power Plants

2.20 The Committee note that the Ministry have reported a loss of 484 MU generation loss during the year 2016-17(till Dec.2016) due to shortage of coal. They have also stated that 15.3 MT have been imported during the year 2016-17 (till Dec.2016) for blending with the domestic coal. The Ministry have further stated that with the concerted efforts of Ministry of Power/Ministry of Coal, domestic coal availability in the power plants has been improved. As a result, the import of coal by power plants required for blending with domestic coal has declined since 2014-15. In regard to improving the quality of indigenous coal they have stated that in order to address quality issues of the coal supplied to power plants, it has been decided by the Ministry of Power on 28 October, 2015 that coal samples shall be collected and prepared by a Single Third Party Agency appointed by power utilities and coal companies. It has also been decided on 16 May, 2016 by the Ministry of Power that the Third Party Sampling at unloading-end may also be carried out by Central Institute of Mining and Fuel Research (CIMFR). To comply with the guidelines issued by the Ministry of Environment & Forests dated 2 January, 2014 regarding transportation of coal to the power plants located beyond 500 kms, coal is washed to reduce the ash content below 34%. The Committee are surprised by generation loss due to shortage of coal. The Committee believe that the era of coal shortages are thing of past and with the new development in coal sector the coal is available in abundance. The Committee, therefore, recommend that it should be ensured that adequate coal is available to power plants so that no generation loss is

there due to shortage of coal. Moreover, to improve the quality of indigenous coal to lessen the dependency on imported coal, the measures as decided by the Ministry of Power should be strictly adhered to.

(Recommendation Sl. No. 20, Para 2.20)

2.21 The Committee note that 6 captive coal mines have been allocated to NTPC. In regard to delay in the development of these mines, the Committee have been apprised that there was no delay on part of NTPC. NTPC, as a coal block allottee, has taken all required actions, in time, for undertaking various block development activities. Statutory approvals from various agencies, site specific studies, and activities, which were in NTPC's control, progressed well in all coal mining projects. Statutory clearances / approvals e.g. Environment & Forest clearances, Mining Plan approval, land acquisition notifications & verification / certification processes, Approval of R&R plan, etc., which are beyond NTPC's control, took longer time. These captive coal mines are very important for NTPC as the production from same would ensure the reliable and sufficient coal supply to its power plants resulting in sustained growth of generation and capacity addition programme. Moreover, expeditious development of captive coal mines may also result in reduction in cost of power generation thus paving the way to offer tariff at lower rates. Issues involved in the entire process of coal block allocation to mining should be addressed in a time bound manner. If necessary, a Project Monitoring Group may be constituted consisting of all the concerned agencies and a periodic meeting may be

held so as to address the various issues responsible of delay in mining the coal from allocated blocks. The Committee, therefore, recommend that every efforts should be made to develop these captive coal mines. The Ministry may also coordinate with the concerned agencies, if the need arises.

(Recommendation Sl. No. 21, Para 2.21)

New Delhi;
9th March, 2017
Phalguna 18, 1938 (Saka)

DR.VIRENDRA KUMAR
Chairman,
Standing Committee on Energy

MINISTRY OF POWER

DEMAND NO. 74

Ministry of Power

(In ₹ crores)

	Actual 2015-2016			Budget 2016-2017			Revised 2016-2017			Budget 2017-2018		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
Gross	7863.27	1352.96	9216.23	10817.17	3721.82	14538.99	8871.21	2480.67	11351.88	11102.46	3708.40	14810.86
Recoveries	*-1189.71*	*-76.83*	*-1266.54*	*-1955.50*	*-232.50*	*-2188.00*	*-674.81*	*-102.84*	*-777.65*	*-807.00*	*-122.72*	*-929.72*
Receipts	*-214.83*	...	*-214.83*	*-98.28*	...	*-98.28*	*-98.28*	...	*-98.28*	...	...	...
Net	**6458.73**	**1276.13**	**7734.86**	**8763.39**	**3489.32**	**12252.71**	**8098.12**	**2377.83**	**10475.95**	**10295.46**	**3585.68**	**13881.14**
A. The Budget allocations, net of recoveries and receipts, are given below:												
CENTRE'S EXPENDITURE												
Establishment Expenditure of the Centre												
1. Secretariat	29.86	...	29.86	35.57	...	35.57	38.16	...	38.16	40.35	...	40.35
2. *Statutory Authorities*												
2.01 Central Electricity Authority	82.50	0.61	83.11	96.54	3.50	100.04	110.25	3.50	113.75	115.91	1.23	117.14
2.02 Setting up of Joint Electricity Regulatory Commission (JERC) for UTs and Goa	5.70	...	5.70	6.81	...	6.81	6.81	...	6.81	7.19	...	7.19
2.03 Appellate Tribunal for Electricity	9.23	...	9.23	10.97	...	10.97	11.21	...	11.21	12.05	...	12.05
2.04 Forum of Regulators (FOR)	0.89	...	0.89	1.00	...	1.00	0.60	...	0.60	...	...	...
2.05 Central Electricity Regulatory Commission (CERC) Fund	34.96	...	34.96	55.50	...	55.50	55.50	...	55.50	57.00	...	57.00
2.06 Less- Amount met from CERC Fund	-34.96	...	-34.96	-55.50	...	-55.50	-55.50	...	-55.50	-57.00	...	-57.00
2.07 Joint Electricity Regulatory Commission (JERC) Manipur and Mizoram	...	...	...	...	...	...	0.01	...	0.01	...	...	...
Total- Statutory Authorities	*98.32*	*0.61*	*98.93*	*115.32*	*3.50*	*118.82*	*128.88*	*3.50*	*132.38*	*135.15*	*1.23*	*136.38*
Total-Establishment Expenditure of the Centre	**128.18**	**0.61**	**128.79**	**150.89**	**3.50**	**154.39**	**167.04**	**3.50**	**170.54**	**175.50**	**1.23**	**176.73**
Central Sector Schemes/Projects												
Conservation and Energy Efficiency												
3. *Energy Conservation Schemes*												
3.01 Energy Conservation	54.82	...	54.82	100.00	...	100.00	50.62	...	50.62	50.54	...	50.54
Deen Dayal Upadhyaya Gram Jyoti Yojna												
4. Deen Dayal Upadhyaya Gram Jyoti Yojna	4500.00	...	4500.00	3000.00	...	3000.00	3350.00	...	3350.00	4814.00	...	4814.00
Integrated Power Development Scheme												
5. *Integrated Power Development Scheme*												
5.01 IPDS-Grant	333.73	...	333.73	2918.72	...	2918.72	2943.37	...	2943.37	3321.22	...	3321.22

(In ₹ crores)

		Actual 2015-2016			Budget 2016-2017			Revised 2016-2017			Budget 2017-2018		
		Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
5.02	IPDS-Loans	...	667.82	667.82	...	2581.28	2581.28	...	1580.64	1580.64	...	2500.00	2500.00
Total- Integrated Power Development Scheme		*333.73*	*667.82*	*1001.55*	*2918.72*	*2581.28*	*5500.00*	*2943.37*	*1580.64*	*4524.01*	*3321.22*	*2500.00*	*5821.22*
Strengthening of Power Systems													
6.	*Strengthening of Power Systems*												
6.01	Smart Grids	1.32	...	1.32	30.00	...	30.00	10.00	...	10.00	30.00	...	30.00
6.02	Green Energy Corridors	...	...	...	...	0.10	0.10	...	0.10	0.10	...	75.00	75.00
6.03	Interest Subsidy to National Electricity Fund	7.00	...	7.00	25.00	...	25.00	9.00	...	9.00	10.00	...	10.00
6.04	Financial support for Debt restructuring of DISCOMS	...	...	...	0.01	...	0.01	0.01	...	0.01	...	...	...
6.05	Power System Operation Company (POSOCO)	...	...	...	...	81.21	81.21	...	81.21	81.21	...	40.00	40.00
6.06	220 kV Transmission line from Srinagar to Leh via Kargil	...	250.00	250.00	...	250.00	250.00	...	250.00	250.00	...	250.00	250.00
6.07	Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim (Program Component)	197.33	...	197.33	124.00	...	124.00	41.00	...	41.00	95.00	...	95.00
6.08	Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim (EAP Component)	50.00	...	50.00	110.00	...	110.00	37.00	...	37.00	84.00	...	84.00
6.09	Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	150.00	...	150.00	273.00	...	273.00	255.26	...	255.26	193.00	...	193.00
6.10	Funds for Evaluation Studies and Consultancy	...	...	...	0.01	...	0.01	0.01	...	0.01	...	...	...
6.11	Comprehensive Award Scheme for Power Sector	0.17	...	0.17	0.54	...	0.54	0.54	...	0.54	...	...	...
6.12	Jammu and Kashmir-price escalation Prime Minister's Reconstruction Package (PMRP) 2004 relating to transmission and distribution network	...	...	...	...	...	...	130.00	...	130.00	65.00	...	65.00
6.13	Actual recovery	-4.01	...	-4.01	...	...	...	...	...	...	...	...	...
	Net	*401.81*	*250.00*	*651.81*	*562.56*	*331.31*	*893.87*	*482.82*	*331.31*	*814.13*	*477.00*	*365.00*	*842.00*
Power System Development Fund													
7.	*Power System Development Fund*												
7.01	Transfer to Power System Development Fund (PSDF)	1150.74	...	1150.74	1900.00	...	1900.00	619.31	...	619.31	750.00	...	750.00
7.02	Scheme for Power System Development	175.00	...	175.00	400.00	...	400.00	219.31	...	219.31	500.00	...	500.00
7.03	Utilisation of Gas based Generation Capacity	975.74	...	975.74	1500.00	...	1500.00	400.00	...	400.00	250.00	...	250.00
7.04	Less-Amount met from Power System Development Fund	-1150.74	...	-1150.74	-1900.00	...	-1900.00	-619.31	...	-619.31	-750.00	...	-750.00
	Net	*1150.74*	*...*	*1150.74*	*1900.00*	*...*	*1900.00*	*619.31*	*...*	*619.31*	*750.00*	*...*	*750.00*
Total-Central Sector Schemes/Projects		**6441.10**	**917.82**	**7358.92**	**8481.28**	**2912.59**	**11393.87**	**7446.12**	**1911.95**	**9358.07**	**9412.76**	**2865.00**	**12277.76**
Other Central Sector Expenditure													
Autonomous Bodies													
8.	*Training and Research*												

(In ₹ crores)

	Actual 2015-2016			Budget 2016-2017			Revised 2016-2017			Budget 2017-2018		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
8.01 Central Power Research Institute	37.28	...	37.28	125.00	...	125.00	65.79	...	65.79	150.00	...	150.00
8.02 National Power Training Institute	30.00	...	30.00	40.40	...	40.40	40.40	...	40.40	57.20	...	57.20
Total- Training and Research	*67.28*	*...*	*67.28*	*165.40*	*...*	*165.40*	*106.19*	*...*	*106.19*	*207.20*	*...*	*207.20*
9. Conservation and Energy Efficiency												
9.01 Bureau of Energy Efficiency (Program Component)	35.00	...	35.00	63.29	...	63.29	60.04	...	60.04	49.00	...	49.00
9.02 Bureau of Energy Efficiency (EAP Component)	2.00	...	2.00	0.71	...	0.71	0.59	...	0.59	1.00	...	1.00
Total- Conservation and Energy Efficiency	*37.00*	*...*	*37.00*	*64.00*	*...*	*64.00*	*60.63*	*...*	*60.63*	*50.00*	*...*	*50.00*
Total-Autonomous Bodies	**104.28**	**...**	**104.28**	**229.40**	**...**	**229.40**	**166.82**	**...**	**166.82**	**257.20**	**...**	**257.20**
Public Sector Undertakings												
10. Assistance to CPSUs												
10.01 National Hydro Electric Power Corporation Ltd	...	300.00	300.00	...	367.00	367.00	...	367.00	367.00	...	400.00	400.00
10.02 Tehri Development Corporation (THDC)	...	30.00	30.00	...	40.00	40.00	...	40.00	40.00	...	52.00	52.00
10.03 Damodar Valley Corporation	...	...	...	...	0.10	0.10	...	...	...	...	...	...
10.04 North Eastern Electric Power Corporation (NEEPCO)	...	27.70	27.70	...	166.13	166.13	...	55.38	55.38	...	267.45	267.45
10.05 Badarpur Thermal Power Station	...	...	...	0.10	...	0.10	0.10	...	0.10	...	...	...
	-214.83	...	-214.83	-98.28	...	-98.28	-98.28	...	-98.28	...	...	...
Net	*-214.83*	*...*	*-214.83*	*-98.18*	*...*	*-98.18*	*-98.18*	*...*	*-98.18*	*...*	*...*	*...*
10.06 Central Assistance for Pakul Dul HEP under J and K PMDP 2015 as grant to Chenab Valley Power Projects Private Limited (CVPPPL)	...	...	...	...	...	...	409.12	...	409.12	100.00	...	100.00
10.07 GoI fully serviced bond issue expenditure and interest (PFC bonds)	...	...	...	...	...	...	7.20	...	7.20	350.00	...	350.00
Total- Assistance to CPSUs	*-214.83*	*357.70*	*142.87*	*-98.18*	*573.23*	*475.05*	*318.14*	*462.38*	*780.52*	*450.00*	*719.45*	*1169.45*
11. Acquistion of Coal bearing areas for NTPC												
11.01 Acquisition of coal bearing areas	...	76.83	76.83	...	232.50	232.50	...	102.84	102.84	...	122.72	122.72
11.02 Less Recoveries	...	-76.83	-76.83	...	-232.50	-232.50	...	-102.84	-102.84	...	-122.72	-122.72
Net	...	...	...	...	...	...	...	...	...	...	...	...
Total-Public Sector Undertakings	**-214.83**	**357.70**	**142.87**	**-98.18**	**573.23**	**475.05**	**318.14**	**462.38**	**780.52**	**450.00**	**719.45**	**1169.45**
Total-Other Central Sector Expenditure	**-110.55**	**357.70**	**247.15**	**131.22**	**573.23**	**704.45**	**484.96**	**462.38**	**947.34**	**707.20**	**719.45**	**1426.65**
Grand Total	***6458.73***	***1276.13***	***7734.86***	***8763.39***	***3489.32***	***12252.71***	***8098.12***	***2377.83***	***10475.95***	***10295.46***	***3585.68***	***13881.14***
B. Developmental Heads												
Economic Services												
1. Power	6428.87	...	6428.87	7871.04	...	7871.04	7436.71	...	7436.71	9250.96	...	9250.96

(In ₹ crores)

	Actual 2015-2016			Budget 2016-2017			Revised 2016-2017			Budget 2017-2018		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
2. Secretariat-Economic Services	29.86	...	29.86	35.57	...	35.57	38.16	...	38.16	40.35	...	40.35
3. Capital Outlay on Power Projects	...	307.31	307.31	...	374.91	374.91	...	374.81	374.81	...	418.23	418.23
4. Loans for Power Projects	...	968.82	968.82	...	2751.19	2751.19	...	1584.84	1584.84	...	2555.00	2555.00
Total-Economic Services	**6458.73**	**1276.13**	**7734.86**	**7906.61**	**3126.10**	**11032.71**	**7474.87**	**1959.65**	**9434.52**	**9291.31**	**2973.23**	**12264.54**
Others												
5. North Eastern Areas	...	...	...	856.78	...	856.78	623.25	...	623.25	1004.15	...	1004.15
6. Capital Outlay on North Eastern Areas	...	...	...	...	166.13	166.13	...	55.38	55.38	...	267.45	267.45
7. Loans for North Eastern Areas	...	...	...	...	197.09	197.09	...	362.80	362.80	...	345.00	345.00
Total-Others	**...**	**...**	**...**	**856.78**	**363.22**	**1220.00**	**623.25**	**418.18**	**1041.43**	**1004.15**	**612.45**	**1616.60**
Grand Total	**6458.73**	**1276.13**	**7734.86**	**8763.39**	**3489.32**	**12252.71**	**8098.12**	**2377.83**	**10475.95**	**10295.46**	**3585.68**	**13881.14**

	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total
C. Investment in Public Enterprises												
1. National Thermal Power Corporation Limited	...	25737.59	25737.59	...	30000.00	30000.00	...	30000.00	30000.00	...	28000.00	28000.00
2. National Hydro Electric Power Corporation Limited	300.00	2492.92	2792.92	367.00	3590.72	3957.72	367.00	2736.25	3103.25	400.00	2689.36	3089.36
3. Damodar Valley Corporation Limited	...	1934.80	1934.80	0.10	3302.57	3302.67	...	1362.54	1362.54	...	2167.15	2167.15
4. North Eastern Electric Power Corporation Limited	27.70	1308.85	1336.55	166.13	890.91	1057.04	55.38	1686.41	1741.79	267.45	1293.80	1561.25
5. Satluj Jal Vidyut Nigam Limited	...	697.07	697.07	...	1000.00	1000.00	...	600.00	600.00	...	1068.00	1068.00
6. Tehri Hydro Development Corporation Limited	30.00	1060.60	1090.60	40.00	1399.37	1439.37	40.00	1684.46	1724.46	52.00	1662.61	1714.61
7. Power Grid Corporation of India Limited	...	22584.00	22584.00	...	22500.00	22500.00	...	24000.00	24000.00	...	25000.00	25000.00
8. Power Finance Corporation Limited	...	...	...	...	5000.00	5000.00	...	5000.00	5000.00	...	...	...
Total	**357.70**	**55815.83**	**56173.53**	**573.23**	**67683.57**	**68256.80**	**462.38**	**67069.66**	**67532.04**	**719.45**	**61880.92**	**62600.37**

Annexure-II

Expenditure figures of 12th five year Plan of Schemes under MoP (GBS) upto 31.01.2017

Rs in crore

Name of Scheme	12th Plan Allocation	2012-13			2013-14			2014-15			2015-16			2016-17			Total expenditure in 12th plan as on 31.01.2017
		BE	RE	Actual	BE	RE	Actual	BE	RE	Actual	BE	RE	Actual	BE	RE	Actual as on 31.01.2017	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18=5+8+11+14+17
GBS to CPSUs																	
NHPC	2056.91	270.37	270.37	270.37	995.83	628.01	628.01	478.80	436.98	436.98	200.00	300.00	300.00	367.00	367.00	367.00	2002.36
THDCIL	516.20	110.00	89.45	89.45	133.72	30.00	30.00	62.92	55.79	55.79	30.00	30.00	30.00	40.00	40.00	40.00	245.24
NEEPCO	406.18	134.00	134.00	109.68	447.00	111.00	111.00	142.10	41.03	41.03	75.00	27.70	27.70	166.13	55.38	0.00	289.41
Sub total A	**2979.29**	**514.37**	**493.82**	**469.50**	**1576.55**	**769.01**	**769.01**	**683.82**	**533.80**	**533.80**	**305.00**	**357.70**	**357.70**	**573.13**	**462.38**	**407.00**	**2537.01**
GBS to Other MoP Schemes																	
RGGVY	23397.44	4900.00	2492.02	697.94	4500.00	3137.65	2938.52	5144.09	2886.38	2874.41	0.00	0.00	0.00	0.00	0.00	0.00	6510.87
National Electricity Fund (NEF)	3601.00	72.00	0.00	0.00	151.92	10.00	0.00	50.69	1.00	1.00	20.00	7.00	7.00	25.00	9.00	8.93	16.93
R-APDRP	10830.00	3114.00	1500.00	1234.49	575.00	700.00	648.70	1261.04	595.26	595.25	0.00	0.00	0.00	0.00	0.00	0.00	2478.44
CPRI	1368.90	265.00	80.00	40.36	298.73	20.00	17.76	295.53	79.82	79.82	125.00	42.00	37.28	125.00	65.79	60.91	236.13
EC including NMEEE	1696.00	200.00	55.00	37.00	564.45	16.00	16.00	107.65	40.72	32.73	60.00	55.00	54.82	100.00	50.62	23.70	164.25
BEE	803.91	200.00	58.80	44.10	193.41	77.60	66.72	139.55	10.00	9.00	50.00	45.00	37.00	64.00	60.63	54.15	210.97
Total (EC+BEE)	2499.91			81.10			82.72	247.20	50.72	41.73	110.00	100.00	91.82	164.00	111.25		297.37
GoI fully service bond-issue expenditure and interest (PFC Bond)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.20	0.00	0.00
NPTI	152.65	5.09	5.09	5.00	11.00	6.00	3.63	60.52	12.70	8.89	40.00	30.60	23.60	33.00	33.00	27.25	68.37
CEA	172.81	19.08	6.53	4.23	37.20	5.35	2.12	46.29	15.28	0.00	30.00	11.73	6.22	10.00	16.86	3.94	16.51
Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	3014.00	145.00	1.00	0.00	1.00	1.00	0.00	175.18	100.00	100.00	150.00	150.00	150.00	273.00	255.26	0.00	250.00
220kV Transmission Line from Srinagar to Leh via Kargil	1628.00	200.00	10.00	0.00	226.00	65.40	65.40	268.14	268.14	268.14	250.00	250.00	250.00	250.00	250.00	250.00	833.54
Finacial Support for Debt Restructuring of DISCOMs*	1000.00	0.00	0.00	0.00	1500.00	125.40	0.00	400.00	1.00	0.00	74.20	1.00	0.00	0.01	0.01	0.00	0.00
Power System Improvement Project in NE Region (Except Sikkim & Arunaxchal Pradesh)	0.00	0.00	0.00	0.00	0.00	62.35	0.00	200.00	150.00	150.00	250.00	250.00	247.33	234.00	78.00	0.00	397.33
Green Energy Corridors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.10	0.10	0.00	0.00
Power System Operation Company	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	81.21	81.21	81.21	81.21
Smart Grid	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	40.00	2.25	1.32	30.00	10.00	0.00	1.32
Power Sector Support to NCT of Delhi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	200.00	200.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	200.00
Deendayal Upadhyaya Gram Jyoti Yojana	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	500.00	500.00	500.00	4500.00	4500.00	4500.00	3000.00	3350.00	2946.26	7946.26
Intergrated Power Development Scheme	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	100.00	50.00	600.00	1002.05	1001.55	5500.00	4524.01	3071.70	4123.25
Assistance to FOR for Capacity Building	15.00	2.00	2.00	1.50	3.00	2.00	0.45	2.25	1.00	0.75	1.00	1.00	0.89	1.00	0.60	0.00	3.59
Funds for Evaluation Studies and Consultancy	10.00	2.00	0.50	0.00	2.00	0.50	0.00	1.50	0.16	0.05	0.30	0.30	0.00	0.01	0.01	0.00	0.05

Rs in crore

Name of Scheme	12th Plan Allocation	2012-13			2013-14			2014-15			2015-16			2016-17			Total expenditure in 12th plan as on 31.01.2017
		BE	RE	Actual	BE	RE	Actual	BE	RE	Actual	BE	RE	Actual	BE	RE	Actual as on 31.01.2017	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18=5+8+11+14+17
Cmprehansive Award Scheme for Power Sector	5.50	0.90	0.90	0.00	0.99	0.99	0.66	1.00	1.00	0.15	1	0.5	0.17	0.54	0.54	0.00	0.98
JERC Manipur & Mizoram	2.50	2.46	2.24	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	1.09
Computerisation & OE	2.00	0.10	0.10	0.38	0.75	0.75	0.75	0.75	0.75	0.75	1.24	1.24	1.23	0.00	0.00	0.00	3.11
R&M of Power plants covered under PAT scheme	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PSDF (Non-gas)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	200.00	185.46	300.00	175.00	175.00	400.00	219.31	0.00	360.46
PSDF (Gas)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1200.00	975.74	1500.00	400.00	324.27	1300.01
Miscellaneous (PM's J&K Packahe 2004/ 2015)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	539.12	0.00	0.00
Sub total B	**51299.71**	**9127.63**	**4214.18**	**2066.09**	**8065.45**	**4230.99**	**3760.71**	**8958.18**	**5166.21**	**5056.40**	**6494.74**	**7726.67**	**7469.15**	**11626.87**	**9951.28**	**6852.32**	**25204.67**
Total (A)+(B)	**54279.00**	**9642.00**	**4708.00**	**2535.59**	**9642.00**	**5000.00**	**4529.72**	**9642.00**	**5700.01**	**5590.21**	**6799.74**	**8084.37**	**7826.84**	**12200.00**	**10413.66**	**7259.32**	**27741.68**

Annexure-III

Financial Performance of 12th five year Plan of CPSUs upto 31.01.2017 (IEBR only)

Rs in crore

Sl No	Name of PSU	12th Plan Allocation	2012-13			2013-14			2014-15			2015-16			2015-16			Total expenditure in 12th plan as on 31.01.2017
			BE	RE	Actual	BE	RE	Actual	BE	RE	Actual	BE	RE	Actual	BE	RE	Actual upto 31.01.2017	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18= column 5+8+11+14 +17
1	NTPC Ltd	219612.50	20995.00	20995.00	19925.53	20200.00	20200.00	21797.24	22400.00	22400.00	23239.25	23000.00	25000.00	25737.59	30000.00	30000.00	19533.19	110232.80
2	NHPC Ltd	27312.04	3826.63	2697.46	3036.89	2453.76	2430.11	2591.02	2745.46	2108.78	2178.47	3979.89	3928.00	2492.92	3590.72	2736.25	1551.43	11850.73
3	DVC	14509.65	5571.69	4180.29	3366.65	4080.82	3515.97	3004.63	2764.99	2286.73	1482.00	3682.93	3088.32	1934.80	3302.57	1362.54	851.79	10639.87
4	NEEPCO Ltd	5866.79	1137.79	1046.36	952.94	1542.61	1550.77	1447.19	945.88	1554.05	1509.15	1216.60	1752.63	1308.85	890.91	1686.41	1091.60	6309.73
5	SJVNL	10400.00	796.00	796.00	842.15	964.08	964.08	1054.05	1091.93	720.22	515.13	1175.00	800.00	697.07	1000.00	600.00	264.47	3372.87
6	THDCIL	6781.86	455.39	272.90	201.72	446.14	301.96	374.33	793.76	718.40	574.23	1550.31	1216.24	1060.60	1399.37	1684.46	1007.89	3218.77
7	PGCIL	102034.00	20000.00	20000.00	20360.00	20000.00	20000.00	23158.00	20000.00	20000.00	22456.00	20000.00	22500.00	22584.00	22500.00	24000.00	17908.00	106466.00
8	PFC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5000.00	5000.00	0.00	0.00
	Total	**386516.84**	**52782.50**	**49988.01**	**48685.88**	**49687.41**	**48962.89**	**53426.46**	**50742.02**	**49788.18**	**51954.23**	**54604.73**	**58285.19**	**55815.83**	**67683.57**	**67069.66**	**42208.37**	**252090.77**

Annexure-IV

Achievement of un-electrified villages under DDUGJY during the last three years

(As on 31.01.2017)

Sr. No.	State	Scope of work	Achievements			Cumulative achievement (includes achievement prior to FY 2013-14)
			2013-14	2014-15	2015-16	
1	Andhra Pradesh*					
2	Arunachal Pradesh	3732	282	107	174	2427
3	Assam	10784	125	190	942	10197
4	Bihar	27018	206	341	1754	25448
5	Chhattisgarh	2396	164	67	405	1901
6	Gujarat*					
7	Haryana*					
8	Himachal Pradesh	125		6	1	118
9	J & K	375	27	9	27	246
10	Jharkhand	19872	47	161	750	19348
11	Karnataka	94				67
12	Kerala*					
13	Madhya Pradesh	1558	98	86	214	1152
14	Maharashtra*					
15	Manipur	1087		192	75	998
16	Meghalaya	2874	144	43	1	2521
17	Mizoram	199	13	47	16	193
18	Nagaland	219	4	10		157
19	Odisha	18321	84	13	1264	16454
20	Punjab*					
21	Rajasthan	4261	18	70	163	4582
22	Sikkim	25				25
23	Tamilnadu*					
24	Telangana*					
25	Tripura	167	1		9	161
26	Uttar Pradesh	29379		59	1305	29285
27	Uttarakhand	1585		4		1522
28	West Bengal	4209			8	4194
	Reduction after closure of the project		16			19
	Grand Total	**128280**	**1197**	**1405**	**7108**	**120977**

* No un-electrified village has been proposed by the State.

Annexure-V

Achievement of intensive electrification of electrified villages under DDUGJY during the last three years

Sr. No.	State	Scope of work	Achievement			Cumulative achievement (includes achievement prior to FY 2013-14)
			2013-14	2014-15	2015-16	
1	Andhra Pradesh	27552				22239
2	Arunachal Pradesh	1305	250	47		1306
3	Assam	23098	354	222	4	12844
4	Bihar	40483	643	2100	9090	24215
5	Chhattisgarh	21867	1934	1135	2161	18290
6	Gujarat	25085		22		16339
7	Haryana	8404	272	207		5137
8	Himachal Pradesh	11699		137	17	10688
9	J & K	5510	328	47	10	2915
10	Jharkhand	35314	57	272	14	5614
11	Karnataka	53030		355	173	26261
12	Kerala	2381	428	500	15	1124
13	Madhya Pradesh	98958	4773	4385	8599	51698
14	Maharashtra	66640		341	8	37060
15	Manipur	3150	23	737		1322
16	Meghalaya	3010	667	48	10	2947
17	Mizoram	532		177		523
18	Nagaland	1949	41	58		1152
19	Odisha	72721	1677	474	711	29895
20	Punjab	6131	6030	397		6427
21	Rajasthan	73143	182	386	1929	43743
22	Sikkim	412	6	16	8	413
23	Tamilnadu	11418				9992
24	Telangana	18326				9176
25	Tripura	1649	35		82	912
26	Uttar Pradesh	107181		551	14587	39524
27	Uttarakhand	10042	243	1562		10687
28	West Bengal	29952	1022	79	1818	29373
29	Dadra & Nagar Haveli	8				
30	Puduchhery	17				
	Reduction after closure of the project		4009			7329
	Grand Total	**760967**	**14956**	**14255**	**39236**	**414487**

Annexure-VI

Release of free service connection to BPL households under DDUGJY during the last three years

As on 31.01.2017

Sr. No.	State	Scope of work	Achievements			Cumulative achievement (includes achievement prior to FY 2013-14)
			2013-14	2014-15	2015-16	
1	Andhra Pradesh	2457287				2416998
2	Arunachal Pradesh	74679	18762	4200		51662
3	Assam	1794604	204904	79004	22077	1210224
4	Bihar	10660852	106007	190571	829336	3997877
5	Chhattisgarh	1448997	69538	62172	38239	1145370
6	Gujarat	848005	11672	1726		842945
7	Haryana	257902	5432	1		198580
8	Himachal Pradesh	19578	927	324		16290
9	J & K	142885	14276	5260	420	69156
10	Jharkhand	2367897	11608	12022	6314	1276035
11	Karnataka	1334754	16560	19532	2735	981694
12	Kerala	192919	60229	12329	15657	150305
13	Madhya Pradesh	3209701	180737	173281	146391	1744544
14	Maharashtra	1621836	32709	6702	59	1221350
15	Manipur	137525	807	40649		70307
16	Meghalaya	121832	18262	1063	21	104457
17	Mizoram	30643	4096	10023		29710
18	Nagaland	98616	8237	8300	507	54559
19	Odisha	4499998	38896	22149	19477	2807933
20	Punjab	92988	20000	1206		96082
21	Rajasthan	1791657	17163	16755	8035	1193149
22	Sikkim	13601	346	1622	1850	13601
23	Tamilnadu	526468				504148
24	Telangana	1125306		868		708865
25	Tripura	208732	16383	1272	4435	141129
26	Uttar Pradesh	5212392	14695	86750	337313	1967747
27	Uttarakhand	238404	29000			258305
28	West Bengal	2480034	62927	1596	6278	2210106
29	Dadra & Nagar Haveli	216				
	Reduction after closure of the project		2443			42237
	Grand Total	**43010308**	**961730**	**759377**	**1439144**	**25440891**

Annexure-VII

Creditors (Dues) for Purchase of Power (Rs. Crores) for Utilities Selling Directly to Consumers – UDAY States.

(Rs. in Crore)

State	Utility	
Andhra Pradesh	APEPDCL	1,520
	APSPDCL	2,403
Andhra Pradesh Total		3,923
Assam	APDCL	2,017
Assam Total		2,017
Bihar	NBPDCL	769
	SBPDCL	1,118
Bihar Total		1,887
Chattisgarh	CSPDCL	2,982
Chattisgarh Total		2,982
Goa	Goa PD	0
Goa Total		0
Gujarat	DGVCL	1
	MGVCL	417
	PGVCL	4
	UGVCL	15
Gujarat Total		437
Haryana	DHBVNL	3,041
	UHBVNL	3,156
Haryana Total		6,197
Himachal Pradesh	HPSEB Ltd.	1,855
Himachal Pradesh Total		1,855
Jammu & Kashmir	J&K PDD	0
Jammu & Kashmir Total		0
Jharkhand	JBVNL	7,104
Jharkhand Total		7,104
Karnataka	BESCOM	3,231
	CHESCOM	2,308
	GESCOM	2,326
	HESCOM	2,263
	MESCOM	1,391
Karnataka Total		11,518
Madhya Pradesh	MP Madhya Kshetra VVCL	2,950
	MP PaschimKshetra VVCL	1,326

	MP PurvKshetra VVCL	1,527
Madhya Pradesh Total		5,803
Maharashtra	MSEDCL	17,952
Maharashtra Total		17,952
Manipur	MSPDCL	78
Manipur Total		78
Puducherry	Puducherry PD	0
Puducherry Total		0
Punjab	PSPCL	1,521
Punjab Total		1,521
Rajasthan	AVVNL	1,116
	JDVVNL	1,259
	JVVNL	1,095
Rajasthan Total		3,470
Tamil Nadu	TANGEDCO	7,462
Tamil Nadu Total		7,462
Telangana	TSNPDCL	1,841
	TSSPDCL	5,629
Telangana Total		7,470
Uttar Pradesh	DVVN	5,184
	KESCO	362
	MVVN	3,993
	Pash VVN	2,921
	Poorv VVN	8,851
Uttar Pradesh Total		21,312
Uttarakhand	Ut PCL	2,557
Uttarakhand Total		2,557

Annexure-VIII

Fuel wise, Sector-wise, State wise and Station wise Plant Load Factor (PLF)

Fuel	Sector	State	Station	Monitored Capacity as on 31.01.2017 (MW)	PLF 2016-17 (upto Jan.'17) (%)
COAL	CENTRAL	ANDHRA PRADESH	SIMHADRI	2000	80.05
		ASSAM	BONGAIGAON TPP	250	75.64
		BIHAR	BARH II	1320	63.99
			KAHALGAON TPS	2340	77.08
			MUZAFFARPUR TPS	415	44.28
			NABI NAGAR TPP	250	0
		CHHATTISGARH	BHILAI TPS	500	82.63
			KORBA STPS	2600	87.9
			SIPAT STPS	2980	90.12
		DELHI	BADARPUR TPS	705	32.9
		DVC	BOKARO `B` TPS	630	28.99
			BOKARO TPS `A` EXP	500	0
			CHANDRAPURA(DVC) T	890	72.81
			DURGAPUR STEEL TPS	1000	75.1
			DURGAPUR TPS	210	20.04
			KODARMA TPP	1000	43.47
			MEJIA TPS	2340	61.29
			RAGHUNATHPUR TPP	1200	18.63
		HARYANA	INDIRA GANDHI STPP	1500	41.98
		JHARKHAND	PATRATU TPS	455	9.05
		KARNATAKA	KUDGI STPP	800	0
		MADHYA PRADESH	VINDHYACHAL STPS	4760	75.14
		MAHARASHTRA	MAUDA TPS	1660	38.92
		ORISSA	TALCHER (OLD) TPS	460	92.05
			TALCHER STPS	3000	86.18
		TAMIL NADU	TUTICORIN (JV) TPP	1000	70.56
			VALLUR TPP	1500	68.23
		TELANGANA	RAMAGUNDEM STPS	2600	84.34
		UTTAR PRADESH	DADRI (NCTPP)	1820	58.39
			RIHAND STPS	3000	83.12
			SINGRAULI STPS	2000	86.41
			TANDA TPS	440	83.56
			UNCHAHAR TPS	1050	75.34
		WEST BENGAL	FARAKKA STPS	2100	73.78
	CENTRAL Total			**49275**	
	STATE	ANDHRA PRADESH	DAMODARAM SANJEE	1600	62.29
			Dr. N.TATA RAO TPS	1760	75.99

Annexure-VIII

Fuel wise, Sector-wise, State wise and Station wise Plant Load Factor (PLF)

Fuel	Sector	State	Station	Monitored Capacity as on 31.01.2017 (MW)	PLF 2016-17 (upto Jan.'17) (%)
			RAYALASEEMA TPS	1050	72.47
		BIHAR	BARAUNI TPS	210	6.28
		CHHATTISGARH	DSPM TPS	500	94
			KORBA-II	200	54.96
			KORBA-III	240	67.34
			KORBA-WEST TPS	1340	76.76
			MARWA TPS	1000	29.41
		DELHI	RAJGHAT TPS	135	0
		GUJARAT	GANDHI NAGAR TPS	870	28.8
			SIKKA REP. TPS	740	30.54
			UKAI TPS	1350	46.01
			WANAKBORI TPS	1470	29.5
		HARYANA	PANIPAT TPS	920	27.37
			RAJIV GANDHI TPS	1200	41.4
			YAMUNA NAGAR TPS	600	67.58
		JHARKHAND	TENUGHAT TPS	420	38.21
		KARNATAKA	BELLARY TPS	1700	69.65
			RAICHUR TPS	1720	74.49
			YERMARUS TPP	800	0
		MADHYA PRADESH	AMARKANTAK EXT TPS	210	77.53
			SANJAY GANDHI TPS	1340	56.09
			SATPURA TPS	1330	30.13
			SHRI SINGHAJI TPP	1200	24.33
		MAHARASHTRA	BHUSAWAL TPS	1420	46.29
			CHANDRAPUR(MAHAR	2920	65.43
			KHAPARKHEDA TPS	1340	65.68
			KORADI TPS	2600	34.82
			NASIK TPS	630	61.16
			PARAS TPS	500	70.66
			PARLI TPS	1170	12.97
		ORISSA	IB VALLEY TPS	420	86.29
		PUNJAB	GH TPS (LEH.MOH.)	920	39.85
			GND TPS(BHATINDA)	440	21.62
			ROPAR TPS	1260	29.77
		RAJASTHAN	CHHABRA TPP	1000	75.95
			KALISINDH TPS	1200	52.24
			KOTA TPS	1240	72.4

Annexure-VIII

Fuel wise, Sector-wise, State wise and Station wise Plant Load Factor (PLF)

Fuel	Sector	State	Station	Monitored Capacity as on 31.01.2017 (MW)	PLF 2016-17 (upto Jan.'17) (%)
			SURATGARH TPS	1500	37.77
		TAMIL NADU	ENNORE TPS	450	5.81
			METTUR TPS	1440	70.22
			NORTH CHENNAI TPS	1830	60.98
			TUTICORIN TPS	1050	63.84
		TELANGANA	KAKATIYA TPS	1100	65.25
			KOTHAGUDEM TPS	720	60.61
			KOTHAGUDEM TPS (N	1000	72.47
			RAMAGUNDEM - B TP	62.5	81.88
			SINGARENI TPP	1200	0
		UTTAR PRADESH	ANPARA TPS	2630	70.4
			HARDUAGANJ TPS	665	72.21
			OBRA TPS	1278	31.84
			PANKI TPS	210	48.99
			PARICHHA TPS	1140	70.44
		WEST BENGAL	BAKRESWAR TPS	1050	75.37
			BANDEL TPS	450	44.48
			D.P.L. TPS	880	27.8
			KOLAGHAT TPS	1260	56.25
			SAGARDIGHI TPS	1600	71.47
			SANTALDIH TPS	500	46.09
	STATE Total			**62980.5**	
	PVT	ANDHRA PRADESH	PAINAMPURAM TPP	1320	75.38
			SGPL TPP	660	49.61
			SIMHAPURI TPS	600	35.69
			THAMMINAPATNAM T	300	52.37
			VIZAG TPP	1040	33.89
		CHHATTISGARH	AKALTARA TPS	1200	59.67
			AVANTHA BHANDAR	600	48.95
			BALCO TPS	600	58.36
			BANDAKHAR TPP	300	44.89
			BARADARHA TPS	1200	66.73
			CHAKABURA TPP	30	92.14
			KASAIPALLI TPP	270	87.03
			KATGHORA TPP	35	0
			NAWAPARA TPP	300	44.54
			OP JINDAL TPS	1000	50.53

Annexure-VIII

Fuel wise, Sector-wise, State wise and Station wise Plant Load Factor (PLF)

Fuel	Sector	State	Station	Monitored Capacity as on 31.01.2017 (MW)	PLF 2016-17 (upto Jan.'17) (%)
			PATHADI TPP	600	82.86
			RAIKHEDA TPP	1370	5.53
			RATIJA TPS	100	70.45
			SALORA TPP	135	0
			SVPL TPP	63	48.35
			SWASTIK KORBA TPP	25	0
			TAMNAR TPP	2400	29.29
			UCHPINDA TPP	720	0
		GUJARAT	MUNDRA TPS	4620	75
			MUNDRA UMTPP	4000	75.18
			SABARMATI (C STATIO	60	0
			SABARMATI (D-F STAT	362	86.7
			SALAYA TPP	1200	52.1
		HARYANA	MAHATMA GANDHI TI	1320	28.23
		JHARKHAND	JOJOBERA TPS	360	75.35
			MAHADEV PRASAD ST	540	71.15
			MAITHON RB TPP	1050	78.9
		KARNATAKA	TORANGALLU TPS(SBU-I)	260	71.18
			TORANGALLU TPS(SBU-II)	600	45.64
			UDUPI TPP	1200	75.35
		MADHYA PRADESH	ANUPPUR TPP	1200	35.4
			BINA TPS	500	14.82
			MAHAN TPP	600	47.86
			NIGRI TPP	1320	65.73
			NIWARI TPP	45	60.58
			SASAN UMTPP	3960	83.3
			SEIONI TPP	600	6.36
		MAHARASHTRA	AMARAVATI TPS	1350	17.93
			BELA TPS	270	0
			BUTIBORI TPP	600	73.58
			DAHANU TPS	500	84.74
			DHARIWAL TPP	600	29.38
			EMCO WARORA TPS	600	68.65
			GEPL TPP Ph-I	120	0
			JSW RATNAGIRI TPP	1200	66.84

Annexure-VIII

Fuel wise, Sector-wise, State wise and Station wise Plant Load Factor (PLF)

Fuel	Sector	State	Station	Monitored Capacity as on 31.01.2017 (MW)	PLF 2016-17 (upto Jan.'17) (%)
			MIHAN TPS	246	0
			NASIK (P) TPS	270	0
			TIRORA TPS	3300	57.98
			TROMBAY TPS	1400	40.31
			WARDHA WARORA TP	540	30.05
		ORISSA	DERANG TPP	1200	64.46
			KAMALANGA TPS	1050	66.05
			STERLITE TPP	2400	39.66
			UTKAL TPP(IND BARAT	350	0
		PUNJAB	GOINDWAL SAHIB TPP	540	5.2
			RAJPURA TPP	1400	76.73
			TALWANDI SABO TPP	1980	48.18
		RAJASTHAN	KAWAI TPS	1320	69.07
		TAMIL NADU	ITPCL TPP	1200	43.54
			MUTHIARA TPP	1200	37.62
			TUTICORIN (P) TPP	300	1.07
		UTTAR PRADESH	ANPARA C TPS	1200	82.97
			BARKHERA TPS	90	59.14
			KHAMBARKHERA TPS	90	56.54
			KUNDARKI TPS	90	69.72
			LALITPUR TPS	1980	30.47
			MAQSOODPUR TPS	90	62.89
			PRAYAGRAJ TPP	1320	46.34
			ROSA TPP Ph-I	1200	80.12
			UTRAULA TPS	90	62.57
		WEST BENGAL	BUDGE BUDGE TPS	750	82.59
			CHINAKURI TPS	30	0
			HALDIA TPP	600	77.02
			SOUTHERN REPL. TPS	135	37.86
			TITAGARH TPS	240	13.21
	PVT Total			**70506**	
COAL Total				**182761.5**	
LIGNITE	CENTRAL	RAJASTHAN	BARSINGSAR LIGNITE	250	62.53
		TAMIL NADU	NEYVELI (EXT) TPS	420	88.82
			NEYVELI TPS- I	600	68.97
			NEYVELI TPS-II	1470	84.03
			NEYVELI TPS-II EXP	500	31.11

Annexure-VIII

Fuel wise, Sector-wise, State wise and Station wise Plant Load Factor (PLF)

Fuel	Sector	State	Station	Monitored Capacity as on 31.01.2017 (MW)	PLF 2016-17 (upto Jan.'17) (%)
	CENTRAL Total			3240	335.46
	STATE	GUJARAT	AKRIMOTA LIG TPS	250	63.32
			BHAVNAGAR CFBC TPP	250	0
			KUTCH LIG. TPS	290	58.63
		RAJASTHAN	GIRAL TPS	250	0
	STATE Total			**1040**	
	PVT	GUJARAT	SURAT LIG. TPS	500	70.87
		RAJASTHAN	JALIPA KAPURDI TPP	1080	71.27
		TAMIL NADU	NEYVELI TPS(Z)	250	48.52
	PVT Total			**1830**	
LIGNITE Total				**6110**	
NUCLEAR	CENTRAL	GUJARAT	KAKRAPARA	440	0
		KARNATAKA	KAIGA	880	84.86
		MAHARASHTRA	TARAPUR	1400	86.58
		RAJASTHAN	DAE (RAJASTHAN)	100	0
			RAJASTHAN A.P.S.	1080	75.46
		TAMIL NADU	KUDANKULAM	1000	74.91
			MADRAS A.P.S.	440	82.36
		UTTAR PRADESH	NARORA A.P.S.	440	84.9
	CENTRAL Total			**5780**	
NUCLEAR Total				**5780**	
Grand Total				**194651.5**	

Annexure - IX

MINUTES OF THE ELEVENTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2016-17) HELD ON 15th FEBRUARY, 2017 IN ROOM No. 'G-074' PARLIAMENT LIBRARY BUILDING, NEW DELHI

The Committee met from 1100 hrs. to 1315 hrs.

PRESENT

LOK SABHA

Dr. Virendra Kumar - Chairperson

2. Shri Sultan Ahmed
3. Shri Om Birla
4. Shri Ashwini Kumar Chaubey
5. Dr. Arun Kumar
6. Shri Jagdambika Pal
7. Shri Ravindra Kumar Pandey
8. Shri M.B. Rajesh

RAJYA SABHA

9. Shri T.K.S. Elangovan
10. Shri Oscar Fernandes
11. Shri La Ganesan
12. Shri Shamsher Singh Manhas
13. Dr. Anil Kumar Sahani

SECRETARIAT

1. Shri A.K. Singh - Additional Secretary
2. Shri Sukhi Chand Chaudhary - Joint Secretary
3. Shri N.K.Pandey - Director

LIST OF REPRESENTATIVES

MINISTRY OF POWER

1.	Shri P.K. Pujari	Secretary
2.	Shri B.P. Pandey	Special Secretary
3.	Smt. Shalini Prasad	Additional Secretary
4.	Dr. Pradeep Kumar	Joint Secretary & Financial Adviser
5.	Smt. Jyoti Arora	Joint Secretary
6.	Dr. A.K. Verma	Joint Secretary
7.	Smt. Anju Bhalla	Joint Secretary
8.	Smt. Archna Agrawal	Joint Secretary
9.	Shri Aniruddha Kumar	Joint Secretary
10.	Shri Raj Pal	Economic Adviser
11.	Ms. Krishna Tyagi	Chief Controller of Accounts
12.	Shri. C. Maheshwaran	Controller of Accounts

CEA/CERC/CPSUs/STATUTORY BODIES/AUTONOMOUS BODIES, ETC.

13.	Shri R.K. Verma	Chairperson, CEA
14.	Shri Subha Sarma	Secretary, CERC
15.	Shri Gurdeep Singh	CMD, NTPC
16.	Shri K.M. Singh	CMD, NHPC
17.	Shri I.S. Jha	CMD, POWERGRID
18.	Dr. P.V. Ramesh	CMD, REC
19.	Shri R.N. Mishra	CMD, SJVNL
20.	Shri Rajeev Sharma	CMD, PFC
21.	Shri A.G. West Kharkongar	CMD, NEEPCO
22.	Shri Saurabh Kumar	CMD, EESL
23.	Dr. Ashu Sanjeev Tinjan	Registrar, APTEL
24.	Shri A.W.K. Langstieh	Chairman, DVC

2. At the outset, the Chairperson welcomed the Members of the Committee and the representatives of the Ministry of Power to the sitting of the Committee and apprised them of the agenda and focus area for the discussion and the provisions of Directions 55(1) and 58 of the Directions by the Speaker.

3. Thereafter, the Secretary, Ministry of Power, briefly apprised the Committee of the main points of the Demands for Grants of the Ministry of Power for the year 2017-18. The Secretary, Power also outlined the achievements of Power Sector and bottlenecks for its further development.

4. Thereafter, the Committee *inter-alia* deliberated upon the following points with the representatives of the Ministry of Power:

i) Performance, physical and financial, of the Ministry of Power during the 12th Five Year Plan in general and 2016-17 in particular – reasons for shortfalls, poor performance of Central Power Sector.

ii) Financial provisions for the year 2017-18 – actual allocation vis-à-vis requirement of funds.

iii) Financial and Physical performances of various programmes viz. Deen Dayal Upadhayay Grameen Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), UDAY for DISCOMs, etc., and issues related to them.

vi) Implementation of DDUGJY – problems in its implementation, issues relating to quantity and quality of infrastructure provided under the scheme, need to cover all the left over villages, etc.

vii) Problems in Distribution Sector – huge accumulated financial losses, high AT&C losses, lack of funding, lack of due attention by the State Governments, etc.

viii) Hydro Power – its importance in wake of large upcoming intermittent renewable energy capacities, barriers in expeditious development of this sector, efforts made to promote hydro power, etc.

ix) Issues related to development of Power Sector – situation of demand and supply of power, problems of the Sector, Low Plant Load Factors (PLF) of thermal plants, suppressed demand of electricity, high tariff rate of electricity, low per capita consumption of power, etc.

5. The Members sought clarifications on various issues relating to the subject and the representatives of the Ministry replied to some of the questions. The Committee directed the representatives of the Ministry to furnish written replies to the queries which could not be responded to by them

6. The verbatim proceedings of the sitting of the Committee were kept on record.

The Committee then adjourned.

Annexure - X

MINUTES OF THE THIRTEENTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2016-17) HELD ON 2nd MARCH, 2017 IN COMMITTEE ROOM '62', PARLIAMENT HOUSE, NEW DELHI

The Committee met from 1100 hrs. to 1120 hrs.

PRESENT

LOK SABHA

Dr. Virendra Kumar - Chairperson

2. Shri Om Birla
3. Shri M. Chandrakasi
4. Shri Ashwini Kumar Chaubey
5. Shri Bhagat Singh Koshyari
6. Kunwar Sarvesh Kumar
7. Dr. Arun Kumar
8. Shri R.P. Marutharajaa
9. Shri Ravindra Kumar Pandey
10. Shri M.B. Rajesh
11. Shri Conrad Kongkal Sangma
12. Shri Devendra Singh alias Bhole Singh
13. Shri Bhanu Pratap Singh Verma

RAJYA SABHA

14. Shri Oscar Fernandes
15. Shri La Ganesan
16. Shri S. Muthukaruppan
17. Shri Javed Ali Khan
18. Dr. Anil Kumar Sahani
19. Smt. Viplove Thakur

SECRETARIAT

1.	Shri A.K. Singh	Additional Secretary
2.	Shri S.C. Chaudhary	Joint Secretary
3.	Shri N.K.Pandey	Director

2. At the outset, the Chairman welcomed the Members and apprised them about the agenda of the sitting. The Committee then took up for consideration the following draft Reports:-

i) Demands for Grants of the Ministry of Power for the year 2017-18.

ii) Demands for Grants of the Ministry of New and Renewable Energy for the year 2017-18.

3. After discussing the contents of the Reports in detail, the Committee adopted the aforementioned draft Reports. The draft Report on 'Demands for Grants of the Ministry of Power for the year 2017-18' was adopted with a minor modification and the draft Report on 'Demands for Grants of the Ministry of New and Renewable Energy for the year 2017-18' was adopted without any change. The Committee also authorized the Chairperson to finalize the above-mentioned Reports and present the same to both the Houses of Parliament in the second part of the Budget Session.

4. x x x x x x x x x x x x

The Committee then adjourned.