05

STANDING COMMITTEE ON ENERGY

(2014-15)

SIXTEENTH LOK SABHA

MINISTRY OF POWER

DEMANDS FOR GRANTS
2015-16

FIFTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

April, 2015/Vaisakha, 1937 (Saka)

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Presented to Lok Sabha on 27.04.2015

Laid in Rajya Sabha on 27.04.2015

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RAJYA SABHA

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31. Shrimati Viplove Thakur

SECRETARIAT

1.	Shri Devender Singh	Additional Secretary
2.	Shri N.K. Pandey	Director
3.	Shri Arun K. Kaushik	Additional Director
4.	Shri Manish Kumar	Executive Assistant

Appointed as Chairman of the Committee w.e.f. 12th November, 2014 *vice* Shri Rajiv Pratap Rudy
@ Nominated as Member of the Committee w.e.f. 14th November, 2014
^ Nominated as Member of the Committee w.e.f. 09th December, 2014 *vice* Shri Rajiv Shukla
* Nominated as Member of the Committee w.e.f. 29th January, 2015 *vice* Md. Shafi who resigned w.e.f. 12.01.2015

INTRODUCTION

I, the Chairman, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this Fifth Report on Demands for Grants of the Ministry of Power for the year 2015-16.

2. The Committee took oral evidence of the representatives of the Ministry of Power on 7th April, 2015. 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 24th April, 2015.

4. The Committee place on record their appreciation for the valuable 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
24th April, 2015
Vaisakha 04 , 1937 (Saka)

DR. KIRIT SOMAIYA
Chairman,
Standing Committee on Energy

REPORT

PART-I

NARRATION ANALYSIS

I. INTRODUCTORY

1.1 The Electricity has an undeniable role in socio and economic progress of a Nation. There has been a considerable increase in installed generation capacity of the Country in the recent time due to active participation of Private Sector and rapid expansion of Renewable Energy sector. Furthermore, there is a planning for addition of generation capacity of large magnitude in the coming years. Today, the Country has a total generation installed capacity of about 2,61,000 MW. Nonetheless, we still have numerous households which do not have electricity access, several villages that are yet to be electrified and cities which have acute power shortages. The ever growing demand for electricity in the Country has consistently been outpacing the pace of electricity generation. Also, the per capita electricity consumption of our Country during the year 2012-13 was 914 units which is a mere 7% of that in USA. Since, the Government now envisages for providing 24x7 power supply across the Country by 2019, the inadequacy of generation capacity will not be the only hurdle. There is an urgent need for radical reforms in financially distressed distribution sector to achieve its economical viability, strengthening of transmission network to match the generation capacity, ensuring supply of required amount of coal and gas for power stations to run at their optimum capacity level and reduction of unacceptably high AT&C losses in the various State of the Country.

1.2 The Ministry of Power is primarily responsible for the development of electrical energy in the country. The Ministry's responsibility inter-alia include 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 Bhakra Beas Management Board as provided in the Punjab Reorganisation Act, 1966 (31 of 1966)
- All matters relating to Central Electricity Authority, Appellate Tribunal 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);
  (m) Bureau of Energy Efficiency(BEE);

- All matters concerning energy conservation and energy efficiency pertaining to 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 later replaced by 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 also entrusted with a number of statutory functions. 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 the capacity addition programmes for timely execution of the cleared projects. The monitoring mechanism operates at 3 broad levels *viz.* by 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 views of the State Governments, Central Electricity Authority (CEA), 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 interests of consumers and other stakeholders keeping in view 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 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 year 2012.
- Financial Turnaround and Commercial Viability of Electricity Sector.
- Protection of consumers' interests.

II. ANALYSIS OF DEMANDS FOR GRANTS (2015-16)

2.6 The Minister of State for Power laid on the table of the Lok Sabha, the detailed Demands for Grants (2015-16) for the Ministry of Power on 19th March, 2015. The Demands show a budgetary provision of GBS of Rs. 6,799.74 crore. The Central Plan Outlay including IEBR i.e. Rs. 54,604.73 crore, however stands at Rs. 61,404.47 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 for the Secretariat of the Ministry of Power, under various schemes.

2. **Central Electricity Authority**:..The Central Electricity Authority (CEA) as a statutory organization is responsible for overall power sector planning, coordination, according concurrence to hydro-electric schemes, promote and assist the timely completion of projects, specifying of technical standards, safety requirements, Grid Standards as well as conditions for installation of meters applicable to the Power Sector of the country. CEA advises the Central Governments on the National Electricity Policy and formulates short term Prospective Plans for development of the electricity system. It also has the mandate to collect, record and make public, data related to all segments of the electricity sector, carry out investigations and promote research.

4. **Research & Development**:..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

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

10. **Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY):** Government of India has launched a new schemeDeendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) with the objectives (a) To separate agriculture and non-agriculture feeders to facilitate Discoms in the judicious rostering of supply to agricultural & non-agricultural consumers (b) Strengthening and Augmentation of Sub Transmission & Distribution infrastructure in rural areas and (c) Rural electrification. The scope of works covered under the scheme are Feeder seperation Creation of new sub-stations provision of micro-grid and off-grid distribtion 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 grant to the Discoms for implementation of the scheme. All Discoms including Private Sector Discoms are eligible for availing financial support under the scheme. The outlay of DDUGJY is ` 43033 crore which includes a budgetary support of Rs 33453 crore from the Govt. of India. The erstwhile RGGVY has been subsumed in DDUGJY as its Rural Electrification component. Under RGGVY upto 31.12.2014 a total of 1,08,913 un-electrified villages have been electrified, 3,14,160 villages have been intensively electrified and free electricity connections to 2,21,17,440 BPL households have been provided for and ` 29,628 crore have been released as subsidy. In addition to 648 projects sanctioned in 10th & 11th Plan, 273 projects have been sanctioned under RGGVY during 12th Five Year Plan, covering electrification of 12468 UE villages and 2,31,935 IE villages with a sanctioned cost of Rs 23607.39 crore.

11. **Funds for Evaluation Studies and Consultancy:** This provision is for conducting evaluation studies of various projects/programmes/ schemes.

12. **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.

13. **Joint Electricity Regulatory Commission (JERC) for Goa & UTs:** 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.

14. **Comprehensive Award Scheme:** Shields and Certificates are given away by the Ministry of Power to the generating stations, transmission and distribution utilities as well as rural distribution franchisees for recognizing meritorious performance in operation, project management and environmental protection.

15. **Energy Conservation:** The funds would be utilized for carrying out awareness creation on Energy Conservation through print, electronic and other media for general public. Continuation of EC awards and paintings competition on Energy Conservation. The fund would also be utilized to implement the National Mission for Enhanced Energy Efficiency (NMEEE) and to upscale the efforts to create and sustain market for energy efficiency to unlock investments.

16. **Bureau of Energy Efficiency (BEE):** Funds would be provided to 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. These initiatives by Government will enhance efficiency of energy consumption and reduce the rate of growth of energy consumption.

18. **Assistance to Forum of Regulator for Capacity Building:** There is a provision for providing funds to Forum of Regulators for capacity building and availing consultancy.

23. **National Electricity Fund (Interest Subsidy Scheme):** 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 Project areas. The pre condition for eligibility are linked to certain reform measures taken by States and the amount of interest subsidy is linked to the progress achieved in reforms linked parameters.

26. **Capital Support to DVC:** A token provision of Rs 1.00 crore has been kept for providing capital support to DVC.

28. **Smart Grid:** The scheme of Smart Grid is one of the schemes included in the 12th Plan with an outlay of ` 1000 crore. 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 point of consumption and ensure control of power flow or curtailment of loads matching generation on real time basis.

31. **Intregated Power Development Scheme:** 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 R-APDRP scheme, which has been subsumed under 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.

32. **Power System Operation Corporation Ltd. (POSOCO):** The Cabinet Committee on Economic Affairs has, in its meeting held on 10.12.2014 has approved the proposal of Setting up of POSOCO as an Independent Government Company under Ministry of Power.

33. **220 KV transmission line from Srinagar to Leh via Kargil:** The Cabinet Committee on Economic Affairs has, in its meeting held on 2.1.2014, approved the proposal 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 substations in Jammu & Kashmir (J&K).

34. **Green Energy Corridor:** 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.

35. **Power System Development Fund (PSDF):** PSDF Scheme has been approved by the Cabinet in the last Financial Year. The scheme envisages strengthening of existing distribution and transmission infrastructure by part funding through Grants. The Scheme would not require any net budgetary support from MOP as the expenditure on the projects would be funded from the receipts accruing from the regulatory charges levied by Central Electricity Regulatory Commission (CERC).

36.03. **Power System Improvement Project in North Eastern Region except Sikkim and Arunachal Pradesh:** World Bank will fund for six NER states viz. Assam, Manipur, Meghalaya, Mizoram, Tripura and Nagaland, the aforesaid new project (on advice of DEA and Planning Commission, projects in sensitive Border Areas viz., Arunachal Pradesh and Sikkim were excluded from the ambit of World Bank financing. Therefore, Intra-State Transmission & Distribution projects for Sikkim & Arunachal Pradesh have been segregated for implementation through budgetary support from Government of India.

Power Sector Reforms (Transmission and Distribution): This will be an umbrella programme for power sector reforms and include schemes at serial number 28-36.

36.07. **Strengthening of Transmission System in the States of Arunachal Pradesh & Sikkim:** A comprehensive scheme for strengthening of transmission, sub-transmission and distribution system in the entire NER including Sikkim has been conceptualized.

34.01 **NTPC Limited:** NTPC was setup in 1975 as a Central Sector generating company for the development of thermal power. The Corporation has grown rapidly to become the largest thermal generating company in India. Company has diversified into hydro power, power trading, coal mining etc. In order to embody its diverse operations the company has been rechristened as NTPC Limited. As on 31 December, 2014 the authorized share capital of NTPC is Rs.10,000 crore and paid up capital of` 8245.46 crore. NTPC including its JVs & subsidiaries has installed capacity of 43,143 MW as on 31

December, 2014. The Government of India stake in NTPC is 74.96% and balance 25.04% of paid-up equity is held by Banks, FIIs, MFs and Public.

34.02 **NHPC Limited:** NHPC Ltd. 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 with an authorized share capital of Rs.15,000 crore and paid up capital as on 31.03.2014 is Rs.11,071 crore. The total installed capacity of NHPC Limited including that of NHDC (Joint Venture Company with Govt. of Madhya Pradesh) as on 31.12.2014 is 6507 MW. NHPC is presently engaged in construction of 4 hydro projects with aggregate installed capacity of 3290 MW. It has also completed 3 projects on deposit work/turnkey basis.

34.03 **Damodar Valley Corporation (DVC):** DVC was established in 1948 for the promotion and operation of irrigation, water supply, drainage, generation, transmission and Hydro-electric Power in Damodar Valley. The total installed capacity of DVC as on 31.12.2014 is 7745.20 MW.

34.04 **North Eastern Electric Power Corporation (NEEPCO):** The North Eastern Electric Power Corporation Limited (NEEPCO), a Schedule A Mini Ratna company under Ministry of Power, Government of India was 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. Authorised share capital of the company is Rs 5000 crore. The existing installed capacity of the company is 1130 MW comprising of 755 MW of Hydro and 375 MW of Gas Based Power. The company is executing 770 MW of Hydro Power Projects, 152 MW of Gas Based Power Projects and 5 MW of Solar projects which are under advanced stages of completion. The company is committed to add 2500 MW of renewable energy by March 2019.

34.05. **SJVN Limited (Formerly Nathpa Jhakri Power Corporation Limited NJPC):** SJVN Limited is a Schedule-A Mini Ratna company (Formerly Nathpa Jhakri

Power Corporation Limited - NJPC) established on 24 May, 1988 as a joint venture of the Government of India (GOI) and the Government of Himachal Pradesh (GOHP) with an equity participation in the ratio of 75:25 respectively, to plan, investigate, organize, execute, operate and maintain Hydro-electric power projects. Govt. of India through an Initial Public Offer (IPO) of SJVN in the month of May, 2010, offered 10.03% of its share to the public and financial institutions. Current equity holding is GOI 64.47%, GOHP 25.50% and public 10.03%.The existing installed capacity of SJVN as on 31.12.2014 is 1959.6 MW which comprises 1500 MW Nathpa Jhakri Hydro Power Station, 412 MW Rampur Hydro Power Station and 47.6 MW Khirvire Wind Power. SJVN has also diversified into Wind, Solar, Thermal and Power Transmission.

34.06 **THDC India Limited:** 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 Bhagirathi valley. The Authorised share capital of Corporation is Rs 4000 Cr and the Paid-up share Capital of the Company as on 31.03.14 was Rs 3473.10 Cr. THDCIL was conferred Miniratna Company-I status in Oct 09 and upgraded to Schedule A company in July 10 by the Govt of India. THDCIL is a multi project organisation having 15 projects totaling to an installed capacity of 6211 MW under operation/ various stages of development in Uttarakhand, UP, Maharashtra and Bhutan. The 2400 MW Tehri Hydro Power Complex comprises Tehri Dam & HPP (1000MW), Koteshwar HEP (400 MW) and Tehri PSP (1000MW). The Corporation has successfully commissioned the Tehri & HPP (1000 MW) Stage-I and Koteshwar HEP (400 MW) during the tenth and eleventh plans respectively. 1000 MW Tehri PSP is under construction and is scheduled to be commissioned in thirteenth Plan. Vishnugad Pipalkoti Hydro Electric Project (444 MW) on river Alaknanda in Uttarakhand is under construction. The project is funded by for World Bank. The Project is scheduled to be commissioned in thirteenth plan, Dhukwan 24 MW SHP in Distt, Jhansi (UP) is under construction stage and scheduled to be commissioned in thirteenth Plan. Towards diversification of the company into other energy areas, THDCIL has been entrusted with

a coal based 1320 MW Khurja Super Thermal Power Station at Khurja in the state of Uttar Pradesh.

34.07 **PGCIL:** Power Grid Corporation of India Limited (POWERGRID) was incorporated as a Government of India enterprise on 23 October 1989 under the Companies Act 1956 with an authorized share capital of Rs 5000 crore which has been enhanced to Rs 10000 crore. POWERGRID the Central Transmisison Utility (CTU) of the country and a Navratna Company is engaged in bulk power transmission business at (765/400kV) Extra High Voltage (EHV) and (500kV) HVDC voltage level and is responsible for Operation of Regional and National Power Grids to facilitate transfer of power within and across the regions. As on 31 December 2014, company has transmisison network comprising of 113389 ckm of EHV transmission lines and 188 numbers of sub-stations having transformation capacity of 219079 MVA in operation.

III. ANNUAL PLAN OUTLAY

1.7 During Regular Budget of 2015-16, the Ministry of Power sought an outlay Rs. 19,243.46 crore (GBS component). However, the Ministry of Finance approved the allocation of Rs. 6,799.74 crore only. The total outlay for the year 2015-16 is Rs. 61,404.47 crore comprising IEBR of Rs. 54,604.73 crore and GBS of Rs. 6,799.74 crore. Details of the GBS components are as given in the table below:

Table: 1.7 – Annual Plan Outlay (GBS)

Sl. No	Organisations/Schemes	Allocation Approved	Allocation Sought
	GBS for other MoP Schemes		
1.	Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY) #/ Rajiv Gandhi Gramin Vidyutikaran Yojana (RGGVY)*	4500.00	9000.00
2.	Loan to PFC under APDRP***	400.00	800.00
3.	Integrated Power Development Scheme – Grant^	200.00	2700.00
4.	NHPC	200.00	572.70
5.	NEEPCO	75.00	163.10
6.	THDCIL	30.00	46.56
7.	220kV Transmission line from Shrinagar to Leh via Kargil	250.00	350.00
8.	Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	150.00	600.00
9.	Power System Improvement Project in NE region (except Sikkim & Arunachal Pradesh)^^	250.00	749.80
10.	PSDF	300.00	3000.00
11.	Central Power Research Institute	125.00	300.00
12.	National Power Training Institute	40.00	50.00
13.	Financial Support for Debt Restructuring of DISCOMs	74.20	200.00
14.	Energy Conservation	60.00	100.00
15.	BEE**	50.00	72.00
16.	Smart Grid	40.00	186.00
17.	Central Electricity Authority	30.00	25.00
18.	National Electricity Fund (NEF)/Interest subsidy sch.	20.00	125.00
19.	Other Schemes @	5.54	203.3
	Total	**6799.74**	**19243.46**
	*This includes Rs 510.95 crore for Scheduled caste Sub Plan (SCSP) & Rs 180.00 crore for North Easten Regions.		
	**This includes Rs 2.00 crore grant as Externally Aided Project Component. ^^ This includes Rs. 50 crore grant as Externally Aided Project component		
	***This includes Rs 55.46 crore for Scheduled caste Sub Plan (SCSP) & Rs 16.00 crore for North Eastern Regions. ^ This includes Rs 9.00 crore for North Eastern Regions.		

	# The allocation contains provision for RE component of erstwhile RGGVY and the new scheme of DDUGJY. @ "Other Schemes" include: Computerization & Office Equipment, Funds for evaluation, studies and consultancy, Comprehensive Award Scheme for Power Sector, Assistance to FOR for Capacity Building, Green Energy Corridors, Power System Operation Company (POSOCO)

1.8 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. Power Sector CPSUs have capex target in excess of Rs. 50,000 crore per year. The expenditure under IEBR is not routed through government budget/demand for grant. It is managed by the Board of the respective PSUs.

1.9 It was further informed that the GBS on the other hand is the gross budgetary support/demand for grant provided from out of Consolidated Fund of India for implementation of various schemes of the Ministry, forming part of the Five Year Plan/Annual Plans. For the 12th Plan, GBS size is Rs. 54,279 crore. The expenditure under GBS is routed through Ministry's budget.

1.10 The Committee during their sitting on the subject raised the issue of connection between budgetary cut by the Ministry of Finance and low utilization of fund. The Secretary, Ministry of Power explained the matter as under:

> "In terms of the expenditure which is low and the Finance Ministry cuts, it works both ways. I had mentioned during my presentation also that they certainly look at our progress of expenditure but they also look at their purse and it works both ways. For example, you mentioned specifically about IPDS. We were ready to release Rs. 100 crore but the Finance Ministry was not releasing the Rs. 100 crore and on 31st March, I myself must have spoken to the officers, my counterpart in Expenditure, three times to be precise. My FA must have spoken more than that at his level. So, ultimately, we could get on 31st March only Rs. 50 crore.

That is the reason for Rs. 50 crore otherwise, we could have released more than Rs. 100 crore."

1.11 In this matter he further stated:

"हम ग्रॉस बजटरी सपोर्ट पर ज्यादा डिपेन्डेन्ट नहीं है। हमारी दो मुख्य स्कीम्स हैं - दीनदयाल उपाध्याय ग्राम ज्योति योजना (DDUGJY) और आई.पी.डी. स्कीम, मेजर प्रोविजन इन्हीं दो स्कीम्स में हैं। हमें इन दो स्कीम्स लिए पैसा मिल गया तभी हम यह अप्रूव कर पाये। DDUGJY 43,000 करोड़ की स्कीम है और 30,000 करोड़ की स्कीम आई.पी.डी.एस. है। हम चाहते थे कि वर्ष 2015-16 के बी.ई. में, जो 6,800 करोड़ टोटल पर peg कर दिया गया, इन दो स्कीम्स पर ज्यादा प्रोविजन हो। We would have liked a more provision for these two schemes but we have a reasonable assurance from the Ministry of Finance that if our progress of expenditure is good, then at the RE stage, they will consider giving more money to us."

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

Table: 1.12 – Utilization of GBS during the 11th and 12th Plan

(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	4289.59	235.24	4524.83
2.	2008-09	6000.00	395.76	6395.76	6100.00	271.51	6371.50	6049.97	196.05	6246.02
3.	2009-10	9230.00	276.73	9506.73	6814.00	216.80	7030.80	6711.98	208.74	6920.72
4.	2010-11	10630.00	133.58	10763.58	8725.22	114.69	8839.91	8601.80	107.36	8709.16
5.	2011-12	9642.00	137.68	9779.68	6051.00	131.34	6182.34	4699.98	127.37	4827.35
6.	2012-13	9642.00	133.77	9775.77	4708.00	410.86	7901.93	2536.71	3526.88	6063.59
7.	2013-14	9642.00	671.70	10313.7	5000.00	410.86	5410.86	4529.72	650.81	5180.53
8.	2014-15	9642.00	126.50	9768.5	5700.00	102.00	5598.00	4884.22	115.37	4999.59
9.	2015-16	6799.74	-73.81	6725.93	NA	NA	NA	NA	NA	NA

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

Table: 1.13 – Actual Utilization against the Budget Estimates

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	52,976.99	84.86%
2013-14	59,329.41	53,962.89	56,749.24	95.65%
2014-15	60,384.02	55,488.18	*48,353.75	*80.07%

* As on 28th February, 2015.

1.14 The Plan & Non-Plan quarter wise utilization of the budget allocations for the last three years is given below:

Table: 1.14 – Quarter-wise Utilization

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**	1761.70	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	NA	NA
	Percentage	1.05	31.97	14.92	NA	NA

Non-Plan (Rs in crore)

FY (Allocation in BE)		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total
2012-13 (133.77)*	**Actuals**	30.33	26.34	24.44	3445.77	3526.88
	Percentage	22.71	19.72	18.30	2579.56	2640.28
2013-14 (671.70)**	**Actuals**	31.53	561.90	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	NA	NA
	Percentage	28.02	25.73	23.25	NA	NA

***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 inrest of NEEPCO

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

1.15 The budgetary allocation of the Ministry of Power for 2014-15 was Rs 9,642.00 crore against which the actual expenditure was Rs 4,884.22 crore as on 28.2.2015. When the Committee enquired about the reasons for variation in Budget Estimates and Actual utilization of fund for the year 2014-15, the Ministry of Power in their written reply have furnished the following information:

Table: 1.15 – Reasons for Variation in BE and Actual Utilization

(Rs in crore)

Sl. No.	Name of the Schemes/ CPSU	BE 2014-15	RE 2014-15	Actual 2014-15 (As on 28.2.15)	Reasons for shortfall in expenditure
	1	2	4	5	6
1.	RGGVY/DDUGJY	5144.09	2886.38	2817.72	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.
1A.	DDUGJY	500.00	500.00	166.00	A proposal for release of Rs. 334 crore is in process and is likely to be released before the close of financial year.
2.	R-APDRP / IPDS (See Sl. No. 13)	1261.04	595.26	541.76	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.
2A	Integrated Power Development Scheme	100.00	100.00	0.00	The proposal for release of the entire budget allocation is in process and likely to be released before the close of financial year.
3.	NEEPCO	142.10	41.03	41.03	Utilization of funds had to be restricted due to lower allocation at RE stage..
4	THDCIL	62.92	55.79	55.79	Utilization of funds had to be restricted due to lower allocation at RE stage.
5	Power System Improvement Project	200.00	150.00	150.00	Due to lower allocation at RE stage, expenditure could not reach the BE level.
6.	Transmission system of AP &	175.18	100.00	100.00	Due to lower allocation at RE stage, expenditure could not

	Sikkim				reach the BE level.
7	Energy Conservation	107.65	40.72	16.58	A proposal for release of Rs. 24 crore is under process.
8	CPRI	295.53	79.82	79.82	The appraisal and approval for the continuation of the scheme during the 12th Plan could be obtained only in the later half of the current financial year. Therefore, the utilization is very low when compared to BE.
9	Bureau of Energy Efficiency	139.55	10.00	0.00	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.
10.	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. 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.
11.	National Electricity Fund	50.69	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. 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.

IV. 12TH FIVE YEAR PLAN

1.16 The 12th Five Year Plan (2012-17) component has been approved in 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.

1.17 The erstwhile Planning Commission had fixed generation capacity addition target of the order of 88,537 MW from the conventional sources comprising of 10,897 MW hydro power, 72,340 MW thermal power and 5,300 MW nuclear power. The sector-wise breakup of the planned capacity addition is 26,182 MW in Central Sector, 15,530 MW in State Sector and 46,825 MW in Private sector, whereas, the proposed Renewable Capacity Addition during the 12th Plan is 30,000 MW.

1.18 The erstwhile Planning Commission assessed an Outlay of Rs 4,40,795.84 crore during the 12th Plan period for the Central Sector comprising of Rs 3,86,516.84 crore of Internal & Extra Budgetary Resources (IEBR) to be raised by the CPSUs themselves and Rs 54,279.00 crore of Gross Budgetary Support (GBS). The actual utilization upto 31.01.2015, during the 12th Plan period is Rs 1,51,177.78 crore including Rs 1,39,485.04 crore as IEBR and Rs 11,692.74 crore as GBS.

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

Table: 1.19 – Financial Performances of CPSUs during the 12th Plan

(Rs.In Crore)

Sl No.	Activity/ Organization		IEBR	GBS	Total
A	**Investment by PSUs**				
1	NTPC Ltd	Estimates	219612.50	0.00	219612.50
		Achievement	57104.70	0.00	57104.70
2	NHPC	Estimates	27312.04	2056.91	29368.95
		Achievement	6945.24	1335.36	8280.60
3	POWERGRID	Estimates	102034.00	0.00	102034.00
		Achievement	60815.00	0.00	60815.00
4	DVC	Estimates	14509.65	0.00	14509.65
		Achievement	7635.37	0.00	7635.37
5	THDC India Ltd	Estimates	6781.86	516.20	7298.06
		Achievement	1021.38	175.24	1196.62
6	SJVNL	Estimates	10400.00	0.00	10400.00
		Achievement	2348.09	0.00	2348.09
7	NEEPCO	Estimates	5866.79	406.18	6272.97
		Achievement	3615.26	261.71	3876.97
	Total (A)	**Estimates**	**386516.84**	**2979.29**	**389496.13**
		Achievement	**139485.04**	**1772.31**	**141257.35**
B	**MoP Schemes (other than CPSUs)**				
1	Rajeev Gandhi Grameen Vidyutikaran Yojana (RGGVY)*	Estimates	0.00	25897.44	25897.44
		Achievement	0.00	6454.18	6454.18
2	Restructured Accelerated Power Development Program (R-APDRP)**	Estimates	0.00	10830.00	10830.00
		Achievement	0.00	2392.32	2392.32
3	National Electricity Fund (NEF)	Estimates	0.00	3601.00	3601.00
		Achievement	0.00	0.00	0.00
4	Strenthening of Transmission System in the States of Arunachal Pradesh & Sikkim	Estimates	0.00	3014.00	3014.00
		Achievement	0.00	100.00	100.00

5	Energy Conservation	Estimates	0.00	1696.00	1696.00
		Achievement	0.00	69.58	69.58
6	220 Kv Transmission Line from Srinagar to Leh via Kargil	Estimates	0.00	1628.00	1628.00
		Achievement	0.00	333.54	333.54
7	Central Power Research Institute (CPRI)	Estimates	0.00	1368.90	1368.90
		Achievement	0.00	128.74	128.74
8	Financial Debt Restructuring of DISCOMs	Estimates	0.00	1000.00	1000.00
		Achievement	0.00	0.00	0.00
9	Other MoP Schemes	Estimates	0.00	2264.37	2264.37
		Achievement	0.00	442.07	442.07
	Total(B)	**Estimates**	**0.00**	**51299.71**	**51299.71**
		Achievement	**0.00**	**9920.43**	**9920.43**
	Total GBS (A) + (B)	**Estimates**	**386516.84**	**54279.00**	**440795.84**
		Achievement	**139485.04**	**11692.74**	**151177.78**

*****.The scheme of RGGVY has been subsumed in the new scheme namely Deen Dayal Upadyaya Gram Jyoti Yojana (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.
Note : The above achievement are as on 31.01.2015

1.20 The Ministry during the evidence on the subject informed the Committee that against the total targeted outlay of Rs. 3.86 lakh crore, only Rs. 1.56 lakh crore could be achieved in the first three years of 12th Plan. When the Committee asked for the reasons for such performance, the Secretary of the Ministry of Power deposed before the Committee as under:

> "On the IEBR target...this is a general tendency for all PSUs not only in this sector, but in other sectors also. When they are making their 12th Five Year Plan, they come up with very ambitious numbers that we will do this much CAPEX in the 12th Plan. Usually, that does not get realized. You have made a valid observation that so far we have done 1 lakh 52 thousand crore in terms of IEBR expenditure and this year it is about 60 thousand crore. So, we are probably not going to reach 3 lakh 86 thousand crore but it will be somewhere near 3 lakh crore or somewhere

there. This is the result of the ambitious planning which is done at the beginning of the 12th Plan."

1.21 He further elaborated:

"मैं एक छोटी सी बात पर ध्यान आकृष्ट करना चाहूंगा कि 3 लाख 86 हजार करोड़ जो आईईवीआर है, अगर हम उसमें देखें तो सिर्फ एनटीपीसी का ही 2 लाख 19 हजार करोड़ है यानी उस समय एनटीपीसी ने प्लान किया होगा कि 40 हजार पर ईयर हम करेंगे, लेकिन एक्चुअली 20-22 हजार कर रहे हैं। कमी वहीं आ रही है। ... ऐसा नहीं है कि वे 40 हजार का केपैक्स करने में सक्षम नहीं हैं, वे पूरी तरह से सक्षम हैं। लेकिन प्रोजैक्ट्स की पाइपलाइन होनी चाहिए और प्रोजैक्ट्स की पाइपलाइन इन्होंने बनाई भी होगी। उसके लिए लैंड की उपलब्धता, कोल, पानी और फॉरैस्ट क्लीयरैंस, इनवायरमैंट क्लीयरैंस की आवश्यकता है। कहीं न कहीं उनमें कमी रह जाती है। वे 40 हजार करना चाह रहे थे और सक्षम भी हैं, लेकिन चूंकि वे सारी चीजें टाई-अप नहीं हो सकीं, इसलिए यह स्तर नहीं पहुंच पाया।"

1.22 When the Committee raised the issue that budget of various schemes are approved beforehand but the actual execution start only after 2-3 years. They also desired to know as to why the assessment in regard to requirement of infrastructure and timeline cannot be done before hand to ensure its expeditious implantation. In reply of this the Secretary of the Ministry of Power deposed before the Committee as under:

"आपका प्वाइंट ठीक है। होता यह है कि जिस समय ट्वैल्थ प्लान बना होगा, उस समय यह विचार आया होगा कि we need these new schemes. उदाहरण के तौर पर नेशनल स्मार्ट ग्रिड मिशन कि एक स्मार्ट ग्रिड इनीशिएटिव शुरू करने की जरूरत है। उसके लिए हमें एक नई स्कीम बनानी चाहिए। उसके लिए उस समय एक टोकन प्रोविजन कर दिया जाता है, एक आउटले रख दिया जाता है। उस समय स्कीम की कोई रूपरेखा नहीं होती। जब प्रोविजन हो जाता है, फिर विभाग स्कीम की रूपरेखा बनाता है। जैसी व्यवस्था है, सरकार में स्कीम को एप्रूव कराने का लम्बा प्रोसीजर है, ईएफसी, प्री पीआईबी, पीआईबी, कैबिनेट, उस प्रोसिजर में टाइम लगता है। मैं कह रहा था कि जब ट्वैल्थ प्लान बना, उस समय नई स्कीम की कल्पना कर ली गई लेकिन कोई रूपरेखा नहीं थी। रूपरेखा 2013-14 में ही बननी शुरू हुई और 2014-15 में वह फ्रक्टीफाई हुई। आप यह चीज हर विभाग में देखेंगे। मैं मानता हूं कि यह अच्छी चीज नहीं है।"

1.23 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 are as under:

Table: 1.23 – Capacity Addition Target for the 12th Plan

(Figures in MW)

	HYDRO	THERMAL BREAKUP			TOTAL THERMAL	NUCLEAR	TOTAL
		COAL	LIGNITE	GAS/LNG			
CENTRAL SECTOR	**6004**	13800	250	827.6	**14878**	**5300**	**26182**
STATE SECTOR	**1608**	12210	0	1712.0	**13922**	**0**	**15530**
PRIVATE SECTOR	**3285**	43270	270	0.0	**43540**	**0**	**46825**
ALL-INDIA	**10897**	69280	520	2539.6	**72340**	**5300**	**88537**

1.24 When the Committee enquired about the estimation in regard to the fund requirement of the power sector during the 12th Five Year Plan period, it was stated by the Ministry that the estimated requirement for power sector during the 12th Plan will be Rs.15,01,666 crore, whereas, Rs.3,18,573 crore will be required for renewable energy sector. Thus, the total fund requirement during 12th Plan for the power sector including renewable energy is projected at Rs.18,20,239 crore.

V. MINISTRY OF POWER SCHEMES

A. Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

1.25 The Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) is 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.

1.26 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 Yojaoan (RGGVY) schemes 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 12th and 13th Plans shall be carried forward under DDUGJY.

1.27 In regard scope of 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 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.

1.28 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 concerned Discom 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 concerned Discom.

1.29 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 (Power), Ministry of Power, Government of India.

1.30 The projects shall be implemented on turn-key basis. The turnkey contract shall be awarded by the concerned utilities 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 turnkey/departmental basis shall be permitted with the approval of the Monitoring Committee.

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

Table: 1.31 – Funding Mechanism for DDUGJY

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)*

1.32 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

1.33 The DDUGJY has been approved with an estimated outlay of Rs. 43033 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:

Table: 1.33 – Year-wise allocation of budgetary support for DDUGJY

(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

1.34 In addition to the above, the scheme of RGGVY as approved by CCEA for continuation in 12th and 13th Plans has been subsumed in this scheme as a separate rural electrification component for which CCEA has already approved the scheme cost of Rs. 39275 crore including a budgetary support of Rs. 35447 crore. This outlay will be carried forward to the new scheme of DDUGJY.

1.35 As on 31.01.2015, about 18,700 villages are un-electrified in the country. Year-wise targets proposed for electrification of un-electrified villages are as under:

Table: 1.35 – Proposed Year wise targets for electrification of un-electrified villages

Feb. & March 2015	2015-16	2016-17	2017-18	2018-19	2019-20	Total
500*	3500	4500	4500	3500	2200	18700

*Achievement during Feb. 2015 is 331

1.36 The state-wise status of electrification of villages is enclosed at **Annexure – II.** State-wise details of electrification of un-electrified villages, intensive electrification of already electrified villages & connections released for BPL Households under erstwhile RGGVY is enclosed at **Annexure – III.**

1.37 Guidelines for implementation of scheme approved by the Monitoring Committee have been circulated to all the States and they are in the process of formulation of Detailed Project Reports (DPRs). Targets for new projects shall be finalized based on DPRs formulated by the State Discoms/Power Department and approved by the Monitoring Committee. Projects under the scheme are targeted for completion within a period of 24 months from the date of award.

1.38 When the Committee the basic difference between DDUGY and erstwhile RGGVY, the Ministry in their written reply have furnished the following points:

- The erstwhile RGGVY scheme aims at electrification of villages and habitations with population of more than 100 to provide access to electricity to rural households through creation of electricity infrastructure. DDUGJY scheme covers all rural areas irrespective of any population criteria.
- DDUGJY scheme also includes feeder separation, strengthening & augmentation of sub-transmission & distribution network and metering for feeders, distribution transformers and all categories of consumers in addition to rural electrification. Besides this, provision has been made to connect all 33/11 KV sub-stations under National Optical Fibre Network
- 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.
- While formulating DPRs, utility shall necessarily consult the public representatives including Member of Parliament. Utility shall furnish a certificate to this effect while submitting DPRs to Nodal Agency.
- All Discoms including private sector Discoms, State Power Departments

and RE Cooperative Societies are eligible for financial assistance under DDUGJY.

- Under DDUGJY, the concept of Project Management Agency (PMA) has been introduced for better coordination, monitoring, quality assurance and ensuring timely completion. 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.
- Under DDUGJY, there is a provision for Additional grant (i.e. conversion of 50% of loan component) linked 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

1.39 When the Committee desired to know the monitoring mechanism for proper implementation of DDUGJY, the Ministry in their reply, have provided the following Points:

- Utility shall create a dedicated team for implementation of projects at district and Utility/State level including necessary manpower and requisite infrastructure like office, logistics etc. to ensure smooth implementation, monitoring and to redress grievance of public and public representatives of the project areas. An officer of the rank of Chief Engineer/General Manager or above, will be designated as Nodal Officer from the dedicated team at utility/ state level. The Nodal Officer shall be responsible for implementation of scheme in accordance with the prescribed guidelines, providing all necessary information including physical & financial progress related to the projects, arrange to get relevant orders/clearances from the State Government, enhance level of awareness and redress grievances of public & public representatives in the project areas.
- The utility shall be responsible & accountable for assuring quality in DDUGJY works. Accordingly, utility shall formulate a comprehensive Quality Assurance (QA) and Inspection Plan with an objective to build Quality Infrastructure under DDUGJY works.. Documentation with regard to Quality Assurance & Inspection Plan shall be maintained by utility and kept in proper order for scrutiny during the course of project execution and for future reference. The Utility has to ensure that the quality of material/equipment supplied at site and field execution of works under the project is in accordance with Quality Assurance & Inspection Plan.
- Web based monitoring system shall be implemented by REC for monitoring of progress under DDUGJY.

- Periodical monitoring and review by State Level Standing Committee(s).
- Regular Monitoring by Task force representatives at state level.
- Regular Monitoring through RPM (Review, Planning & Monitoring) meetings at Ministry of Power level.
- An inter-ministerial Monitoring Committee headed by Secretary (P) shall also review and monitor implementation of scheme.

1.40 In regard the timeline for the scheme, the Committee were informed by the Ministry that there is a target to electrify all the villages of the Country by 2020.

B. Integrated Power Development Scheme (IPDS)

1.41 Integrated Power Development Scheme (IPDS) is a new scheme 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.

1.42 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.

1.43 The outlay for first two items is Rs. 32,612 crores {with budgetary support of Rs.25,354 crore}. The scheme of R-APDRP as approved by CCEA for contribution in 12th and 13th Plan will get subsumed in the scheme as a separate component relating to IT enablement of distribution sector and strengthening of distribution network [component (iii) above] for which CCEA has already approved the scheme cost of Rs.44,011 crore including a budgetary support of Rs.22,727 crore. This outlay will be carried for the new scheme IPDS in addition to the outlay indicated initially for first two items.

1.44 In regard to scope of work it has been stated by the Ministry that the scheme will cover works relating to strengthening of sub-transmission & distribution system, including provisioning of solar panels, metering of distribution transformers/feeders/consumers in the urban areas, and IT enablement of distribution sector. Completion of optical fibre missing

links to connect all the 33kV or 66kV grid sub-stations under National Optical fibre Network [NOFN] is also envisaged under the scheme. A national power Data Hub at CEA shall also be established under the scheme.

1.45 The Ministry informed that all Discoms including private sector Discoms and State Power Departments will be eligible for financial assistance under the scheme. In case of private sector Discoms shere the distribution of power supply in the urban areas is with them, the project 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.

1.46 It was further stated that a Project Management Agency (PMA) will be appointed by the utility for monitoring and ensuring timely implementation of the project. 100% grant will provided by Government of India towards expenditure incurred on Project Management Agency (PMA) as per provision in the scheme which will be limited to 0.5% of cost of works.

1.47 Projects under the scheme will be completed within a period of 24 months from the date of issue of Letter of Award (LoA) by the utility. In case the Discoms/Power Departments are not able to complete the projects within stipulated time period due to circumstances beyond their control, the proposed Monitoring Committee will be authorized to grant time extension based on merits in exceptional cases on a case to case basis.

1.48 In regard to funding mechanism proposed under IPDS, the Ministry has provided the following information:

Table: 1.48 – Funding mechanism proposed under IPDS

Agency	Nature of support	Quantum of support (percentage of project cost)	
		Other than Special category States	Special Category States#
Government of India	Grant	60	85
Discom Contribution	Own fund	10	5

Lender (Fls/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).

1.49 Technical and Distribution (T&D) losses are included in Aggregate Technical Commercial (AT&C) losses which are being compiled by Power Finance Corporation (PFC) in the report published by them on 'Performance of State Power Utilities'. The Report is compiled on the basis of data given in the annual accounts (audited / provisional) of SEBs/ unbundled utilities (including Discoms of Delhi & Orissa) and Annual Resource Plans submitted to the Planning Commission by State Power Departments and utilities not preparing annual accounts. Additional information for calculation of AT&C losses is obtained from the utilities.

1.50 The methodology of calculation of AT&C losses as finalized by PFC in consultation with CEA is as follows:

Table: 1.50 – Methodology of Calculation of AT&C losses

Parameter		Definition
AT&C Losses (%) for State Electricity Boards/Power Departments/Discoms)		
• Net input energy (Mkwh)	=	Total input energy (adjusted for transmission losses and energy traded)
• Net sale of energy (Mkwh)	=	Total energy sold (adjusted for energy traded)
• Net revenue from sale of	=	Revenue from sale of energy

energy(Rs.Crs) • Collection Efficiency (%)	= =	(adjusted for energy traded) Net Revenue from Sale of Energy- Change in Debtors for Sale of Power X100 Net Revenue from Sale of Energy
• Energy realized (Mkwh) • AT&C Losses (%) (For State Electricity Boards/Power Departments/Discoms)	= =	New sale of Energy (Mkwh) x collection Efficiency Net input energy (Mkwh) – Energy Realized (Mkwh) x 100 Net input energy (Mkwh)

1.51 Year-wise & State-wise Aggregate Technical & Commercial (AT&C) Losses since inception of R-APDRP in the year 2008-09 are tabulated below:

Table: 1.51 – Year-wise & State-wise AT&C losses

State wise AT&C Loss (%)						
Sl	**State**	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**
1	Andhra Pr.	12.99	16.43	17.50	15.27	13.63
2	Arunachal Pr.	60.15	58.82	61.45	65.55	60.26
3	Assam	32.68	56.19	28.71	29.47	31.85
4	Bihar	34.37	43.92	47.44	59.24	54.63
5	Chattisgarh	32.73	40.04	28.84	29.05	25.12
6	Delhi	17.92	20.78	15.76	18.56	15.22
7	Goa	21.69	6.12	14.08	15.12	14.14
8	Gujarat	22.04	22.81	16.89	19.26	19.87
9	H.P.	12.85	18.46	14.70	18.04	9.53
10	Haryana	33.29	29.32	28.02	28.27	32.55
11	J&K	69.05	70.44	72.86	71.16	60.87
12	Jharkhand	62.80	10.43	46.79	42.77	47.49
13	Karnataka	24.94	25.34	23.71	23.29	20.78
14	Kerala	21.61	14.90	14.09	12.17	10.53
15	Madhya Pr.	46.61	41.03	37.28	38.26	31.15
16	Maharasthra	31.19	25.02	23.30	21.63	21.95
17	Manipur	81.32	47.55	40.17	44.80	85.49
18	Meghalaya	43.37	48.77	51.63	44.85	26.60
19	Mizoram	41.08	38.95	43.09	36.59	27.55
20	Nagaland	44.12	65.36	49.73	22.85	75.30
21	Orissa	42.20	39.70	45.60	44.66	42.94
22	Pondicherry	18.47	19.35	14.43	18.91	9.13
23	Punjab	18.51	17.73	19.64	18.96	17.66
24	Rajasthan	29.83	30.07	24.66	24.81	20.00
25	Sikkim	46.81	59.31	65.46	58.32	53.51

26	Tamilnadu	14.39	18.87	19.49	21.70	20.72
27	Tripura	31.91	29.16	34.48	33.76	33.85
28	Uttar Pradesh	34.90	34.45	42.94	41.95	42.85
29	Uttrakhand	39.89	28.35	28.48	25.84	23.18
30	West Bengal	25.81	33.24	27.40	32.90	34.43
National Level		**27.47**	**26.78**	**26.35**	**26.63**	**25.38**

1.52 When the Committee asked the reasons for the high AT&C losses, the Ministry in their written reply stated as under:

> "Energy losses occur in the process of supplying electricity to consumers on account of technical and commercial reasons. The technical losses are due to energy dissipated in the conductors and equipment used for transmission, transformation and distribution of power while commercial loses are due to pilferage of energy by hooking of lines and bypassing the meters, defective meters, errors in meter reading etc. These technical losses are inherent in a system and cannot be eliminated entirely but can be reduced to a certain level. These losses depend on the pattern of energy use, load density and configuration of the transmission and distribution system.
>
> Main Reasons for high technical Losses
> (a)Overloading of existing lines and substation equipment
> (b)Absence of up-gradation of old lines and equipment
> (c)Low HT: LT lines ratio
> (d)Poor repair and maintenance of equipment:
> (e)Non-installation of sufficient capacitors/reactive power equipment
>
> Reasons for Commercial Losses
> (a)Low metering/billing/collection efficiency
> (b)Theft, pilferage of electricity and tampering of meters
> (c)Low accountability of employees
> (d)Absence of Energy Accounting and Auditing"

1.53 Accelerated Power Development and Reforms Programme was Re-structured and was approved as Central Sector Scheme on 31.07.2008 with total outlay of Rs. 51,577 crores to reduce the AT&C losses to the level of 15%. On being desirous of knowing the palpable

improvement in the distribution sector due to introduction of R-APDRP, the Ministry apprised the Committee as under:

> "812 of 1412 towns have been declared Go Live by February'15 & utilities are able to get information about DT level AT&C losses through IT system established in these towns. As per the Post Go Live reports as received from various utilities in March'15, AT&C loss reduction has been reported in 534 towns through various administrative & technical measures undertaken by utilities. Over 30000 utility personnel have been trained through capacity building initiatives under R-APDRP"

1.54 When the Committee asked for separate Technical and Distribution losses data of the Discoms, the Ministry stated as under:

> "Although about 812 towns of 1412 towns have been declared Go Live, the same is yet to be verified for completion by Third Party Independent Evaluation Agencies-IT. Verification work is in progress in West Bengal and is about to start in Gujarat & Maharashtra. Authentic data for technical & commercial losses separately can emanate only after verification of completion of IT projects under the scheme by TPIEA-IT. Hence, no such data is available with nodal agency."

VI. GENERATION CAPACITY ADDITION PROGRAMME

1.55 The details of the total installed power generation capacity in the country as on 28.02.2015 is given as under:

Table: 1.55 – Total Installed Generation Capacity in the Country

(in MW)

Sector	Mode wise breakup							Total
	Thermal				Nuclear	Hydro (Renewable)	RES (MNRE)	
	Coal	Gas	Diesel	Total				
Central	46775.01	7428.83	0.00	54203.84	5780.00	10691.43	0.00	70675.27
State	55890.50	6974.42	602.61	63467.53	0.00	27482.00	3803.67	94753.20
Private Sector	55830.38	8568.00	597.14	64995.52	0.00	2694.00	27888.47	95577.99
Total	158495.89	22971.25	1199.75	182666.89	5780.00	40867.43	31692.14	261006.46

1.56 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.

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

Table: 1.57 – Capacity Addition – Target and Achievement in the 11th Plan

	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

1.58 A capacity addition target of 88,537 MW excluding 30,000 MW of Renewable Energy Source has been finalized by the erstwhile Planning Commission for the 12th Plan. Out of which 54,383.3 MW capacity has been added till 28.02.2015 during 12th Five Year Plan. The Sector-wise and fuel-wise break up of 12th Plan capacity addition target of 88,537 MW and achievement is given as under:-

Table: 1.58 – Generation Capacity Addition Target and Achievement during the 12th Plan

(In MW)

Sector	Thermal		Hydro		Nuclear		Total		%
	Target	Ach.	Target	Ach.	Target	Ach	Target	Ach.	
Central	14878	7896.60	6004	1624.02	5300	1000	26182	10520.62	**40.2**
State	13922	9909.10	1608	102	0	0	15530	10011.10	**64.5**
Private	43540	33683	3285	169	0	0	46825	33851.5	**72.3**
All India	72340	51488	10897	1895.02	5300	1000	88537	54383.3	**61.4**
%		**71.2**		**17.4**		**18.9**		**61.4**	

1.59 The Generation Capacity Addition Targets and Achievements for the first three years of the 12th Five Year Plan are as under:

Table: 1.59 – Generation Capacity Addition during the first three years of the 12th Plan

(In MW)

Year	Fuel	Thermal		Hydro		Nuclear		Total	
	Sector	Target	Ach.	Target	Ach.	Target	Ach.	Target	Ach.
2012-13	Central	4023.3	5023.3	645	374	2000	0	6668.3	5397.3
	State	3951	3911	87	57	0	0	4038	3968
	Private	7180	11187.5	70	70	0	0	7250	11257.5
	Total	**15154.3**	**20121.8**	**802**	**501**	**2000**	**0**	**17956.3**	**20622.8**
2013-14	Central	3123.3	1660	914	914.1	2000	0	6037.3	2574.1
	State	**4451**	3322	85	45	0	0	4536	3367
	Private	7660	11785	199	99	0	0	7859	11884
	Total	**15234.3**	**16767**	**1198**	**1058.1**	**2000**	**0**	**18432.3**	**17825.1**
2014-15*	Central	2818.3	1213.3	336	336.01	2000	1000	5154.3	2549.31
	State	6770	2676.1	210	0	0	0	6980	2676.1
	Private	5400	10710	296	0	0	0	5696	10710
	Total	**14988.3**	**14599.4**	**842**	**336.01**	**2000**	**1000**	**17830.3**	**15935.4**

* Achievement till 28.02.2015

1.60 When the Committee asked about the difficulties being faced in generation capacity addition programme, the Ministry stated as under:

> "The major difficulties faced in Capacity Addition programme may be summarized as under:
>
> - Thermal Power Projects: Delay in supplies by BHEL, Poor performance by civil contractors, Delay in land acquisition, slow progress of civil works, contractual disputes, etc.
>
> - Hydro Power Projects : Law and Order Problems, land acquisition issues, Contractual issues, Poor geology, flash floods, Change in dam parameters, difficult terrain, Delay in forest clearances, Disruption of work by locals demanding employment, court stay/band, rehabilitation and settlement."

1.61 In regard to remedial measures being taken by the Government to address the issues relating to generation capacity addition, the Ministry enumerated the following points:

> "Central Electricity Authority (CEA) is performing the duties of monitoring of the power projects in pursuance of 73 (f) of Electricity Act, 2003. The progress of each project is monitored continuously through frequent site visits, interaction with the developers and critical study of monthly progress reports. Chairperson, CEA holds review meeting with the developers and other stakeholders to sort out the critical issues;
> - 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 Power Projects;
> - Periodic review of issues related to supply of power equipment from BHEL is jointly undertaken by Secretary (Power) and Secretary (Heavy Industry);

- Periodic reviews are held by the Ministry of Power to review the critical milestones for each CPSU to review the status of the Central Sector projects.
- Secretary (Power) is also holding regional meetings with State Governments, wherein the status of ongoing power projects is also reviewed with the concerned authorities from the State Governments.
- Issues of Inter-Ministerial nature are followed up with the concerned Ministries and also through fora such as the PMG, Committee of Secretaries."

1.62 The total achievements upto February 2015 for the transmission lines (in ckm) and transformation capacity (in MVA/MW) against the target of 12th Five year Plan are given as under.

Table: 1.62 – Transmission Sector – Targets and Achievement during 12th Plan

	Sector	Targets	Achievements
Central/State/Private Sector			
(i)	Transmission Lines	107440	51635
(ii)	Transformation Capacity	282750	176354

1.63 On being asked by the Committee regarding the reasons responsible for shortfall in achievement of targets in transmission sector, the Ministry in their reply stated as under:

"The target for transformation capacity had been achieved however there is some shortfall in the achievement of target for transmission line for the year 2012-13 and 2013-14. The reasons for delay can be attributed to the following constraints in implementation of transmission works -

(a) Delay in getting Forest Clearance:

(b) Right-of-Way (RoW) issues in various States:

(c) Delay in land acquisition for Substations"

1.64 When the Committee desired to know the steps being taken by the Government in order to expedite the implementation of transmission projects, the Ministry in their reply enumerated the following points:

> "The progress of transmission projects (220 kV and above) of Central, State and Private Sector which are under construction for evacuation of power from various generating stations in the country and the transmission projects required for system strengthening of existing network is monitored in Ministry of Power and Central Electricity Authority regularly.
>
> - The progress report of the transmission line and substation under construction, which is updated online by various Transmission Utilities, is prepared on monthly basis by Central Electricity Authority and uploaded in its website.
> - Periodical meetings for reviewing of the progress of construction of transmission projects is conducted in Ministry of Power(MoP) and Central Electricity Authority (CEA) regularly and remedial measures are suggested to project authorities.
> - Ministry of Power independently monitors the construction of power Projects through Power Project Monitoring Panel (PPMP).
> - Issues pertaining to pending forest clearance issues are taken up with State Forest Authority, RMoEF and MoEF to expedite its clearance. The issues such as Right of Ways, Railways Line Crossing and National Highways Crossing etc are taken up with respective State or Central Authorities.
> - Site visits are under taken by CEA officers to assess the progress of transmission projects and remedial measures suggested for its timely completion."

VII. HYDRO POWER SECTOR

1.65 As per the Hydropower Potential Re-assessment Study held during 1978-87, the total hydro power potential has been assessed to be about 1,48,700 MW in terms of installed capacity. In addition to the above, 6,782 MW of installed capacity has been assessed from small, mini and micro hydel schemes (i.e. schemes of capacity up to 25 MW).

1.66 At present there is an installed generation capacity of 40867.43 MW of hydro power in the Country including 10691.43 MW of Central Sector, 27482 MW of State Sector and 2694 MW of Private Sector. A target for creation of addition 10,897 MW of Hydro Power has been fixed for the 12th Plan. The details of the targets and the achievement so far in the hydro power sector are as under:

Table: 1.66 – Hydro Power Sector – Targets and Achievement during 12th Plan

Sector	Hydro		%
	Target	Ach.	
Central	6004	1624.02	**27**
State	1608	102	**6.3**
Private	3285	169	**5.1**
All India	10897	1895.02	**17.4**
%		**17.4**	

1.67 Hydro projects with aggregate installed capacity of 5544 MW (1550 MW in Central Sector, 2702 MW in State Sector & 1292 MW in Private Sector) have been commissioned in 11th Plan Period (2007-12). The hydro projects of 10,083 MW (7,104 MW in Central Sector, 780 MW in State Sector & 2,199 MW in Private Sector) has slipped from the 11th Plan targeted programme.

1.68 When the Committee desired to know the details of the facilities and the regulations aimed at providing enabling environment for maximum growth of the hydro power sector, the Ministry furnished the information as under:

"Following policy measures have been adopted by the Government to augment the pace of hydro power development in the country:-

Hydro Power Policy -2008:

Hydro Power Policy,2008 has been notified by Govt. of India on 31.3.2008. The main points of the policy are given below:

- Provides level playing field to private developers –tariff to be determined by the regulator under section 62 of Electricity Act, 2003, - as is being done for PSUs upto Dec.-2015.
- Transparent selection criteria for awarding sites to private developers – regulator to decide.
- Enables all developers to recover their additional costs through merchant sale of upto a maximum of 40% of the saleable energy. 5% reduction for a delay of every six months. – Balance long term PPAs
- For 10 years from the COD, developer to provide 100 units of electricity per month to each PAF - in cash or kind or a combination of both.
- Project developer assists in implementing rural electrification in the vicinity of the project area and contributes the 10% share of the State Govt. under the RGGVY scheme.
- Additional 1% free power from the project for a Local Area Development Fund, - regular revenue stream for welfare schemes, creation of additional infrastructure and common facilities.
- The State Governments are also expected to contribute a matching 1% from their share of 12% free power.

b) Electricity Act, 2003 and consequent changes in Industry Structure:

Electricity Act, 2003 has come into force since 10th June, 2003 replacing the earlier Electricity Act 1910, the Electricity (Supply) Act 1948 and Electricity Regulatory Act 1998. This act has permitted direct commercial relationship between generating companies and consumers/traders. The Act has provided a generating company the right to open access through state /central

transmission utilities. The Act has also enlarged the scope of captive power plants permitting Group captive Plants wheeling power to their consumers. Reforms in the Electricity sector in the country has brought many more organizations like Central Electricity Regulatory Commission and State Regulatory Commissions. The Act has also emphasized the development of hydro power and safety of the structures including dam etc.

c) National Electricity Policy:

The policy lays maximum emphasis on full development of the feasible hydro potential in the country which will facilitate economical development of States, particularly North Eastern States, Uttarakhand, Himachal Pradesh and Jammu & Kashmir. Since the hydel projects call for comparatively larger capital investment, debt financing of longer tenure has been recommended. The State Governments have been advised to review procedure for land acquisition and other approvals / clearances for speedy implementation of hydro projects. Full support of Central Government has been extended for hydel development by offering the services of CPSUs like NHPC, NEEPCO, SJVNL, THDC etc. Emphasis has also been laid on implementation of NPRR-2003 so as to ensure addressing of the concerns of project affected families. Emphasis has also been laid on taking adequate safeguards for environmental protection by monitoring of implementation of Environmental Action Plan and R&R schemes.

d) Recent Initiatives taken by the Government:-

- Decision taken to enhance the power of States to grant concurrence to DPRs of hydro power projects from Rs.500 crore to Rs.1000 crore. Since the original order was issued in 2006, this enhancement covers inflation during the period from 2006 to 2013.
- Amendment proposed to extend the cost plus tariff provision to hydro power projects up to December, 2022
- A policy tool namely 'Hydropower Purchase Obligation (HPO)' is at a advanced stage of implementation to attract private developers for development of hydro power in the country."

1.69 When the Committee desired to know that how far these policies have been successful in achieving the aimed results, the Ministry stated as under:

> "The Government of India has accorded high priority to the development of the hydro potential in the country. Since the combined effort of Central and State Sector developers was not enough, the new Hydro Policy, 2008 was notified on 31.3.2008 to attract the private developers as well by providing level playing field to them for development of hydro-electric projects in the country. About 79% of the hydro potential of the country i.e. 145320 MW (above 25 MW) has either been developed or is under various stages of development. A large number of projects are under survey and investigation stage, which are mostly with the private developers. Most of these projects have been allotted in the last 4-5 years after the new Hydro Policy, 2008 was brought into force. Thus, this Policy has given an impetus to the development of hydro power potential in the country. It is known that development of H.E. Projects is an intricate and long drawn process, spanning over 3-5 years. Long time is required for Survey & Investigation, preparation of DPR, obtaining of statutory and non-statutory clearances including environment and forest clearances, concurrence by CEA, investment decision and financial closure. Once the projects achieve financial closure, implementation takes another 5-8 years. Thus, hydro projects usually have long gestation period. Therefore, the projects which are under development are likely to come up during the 13th Plan and beyond. sFrom the above, it is evident that the new Hydro Policy, 2008 has started showing its impact, however, due to the long gestation period of hydro projects, its full impact would get reflected on the ground from 13th Plan onwards."

1.70 The Ministry has further stated that it may be inferred that the policy interventions adopted by the Government has been successful in yielding results. However, Government has evolved several monitoring mechanisms to review the progress of hydro power development:-

a) Central Electricity Authority (CEA) is monitoring the power projects in pursuance of Section 73 (f) of Electricity Act, 2003. The progress of each project is monitored continuously through frequent site visits, interaction with the developers and critical

study of monthly progress reports. Chairperson, CEA holds regular review meetings with the developers and other stakeholders to sort out the critical issues.

b) A Power Project Monitoring Panel (PPMP) has been set up by the Ministry of Power to independently follow up and monitor the progress of hydro projects.
c) Review meetings are taken by Ministry of Power regularly with the concerned officers of CEA, equipment manufacturers, State Utilities/ CPSUs/ Project developers, etc. to sort out critical issues.
d) Review meetings are held in the Ministry/CEA and with the Border Roads Organisation, Ministry of Road Transport and Highways etc. to expedite development of road infrastructure required by hydro projects.

1.71 During the examination of the subject, the Committee found a sharp contrast in the development of thermal and hydro power sector. When the Committee asked about the reasons responsible for this state of affair, the Ministry in their written reply have stated as under:

> "The hydro power share in terms of installed capacity (MW) was 43.50% in the year 1970. At present (as on 31.01.2015), the hydro power share (having station capacity above 25 MW) is 15.80 %.
>
> There is decrease in Hydro Power share because of large thermal power capacity addition in comparison to Hydro Power Capacity addition. In order to meet the growing demand of power in the country, thermal plants are installed rapidly as their gestation period is less as compared to hydro power plants.
>
> Furthermore, Hydro Projects are site specific. Most of the potential lies in the remote reaches of Himalayas. Moreover, commissioning of hydro projects has its own limitations in terms of geological surprises, natural calamities, difficult terrain and poor accessibility displacement and R&R issues. These limiting factors are relatively lesser in case of thermal projects and therefore thermal projects are comparatively easy to install."

1.72 When the Committee desired to know as to why even Private Sector has failed to attain the desired results in Hydro Sector in terms of augmentation of installed capacity, the Ministry replied as under:

> "Government of India has taken several measures to encourage private sector participation in development of hydro power. The New Hydro Power Policy lays special emphasis on increasing private investment in the Sector. However, the Committee has noticed that the Private Sector has not shown expected results. In order to encourage private sector to setup hydro power projects in India, following provisions have been made in Hydro Power Policy, 2008:
>
> - Provides level playing field to private developers – tariff to be determined by the regulator under section 62 of Electricity Act, 2003, - as is being done for PSUs upto Dec.-2015.
> - Transparent selection criteria for awarding sites to private developers
> - Enables all developers to recover their additional costs through merchant sale of upto a maximum of 40% of the saleable energy. 5% reduction for a delay of every six months. – Remaining 60% through long term PPAs.
>
> Review meetings are taken by CEA/MoP with developers to sort out issues and encourage private sector development."

VI. DEVELOPMENT OF POWER SECTOR

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

Table: 1.73 – Power supply position vis-à-vis demand in the country during the last 5 years

Year	Energy				Peak			
	Requirement	Availability	Deficit (-)		Peak Demand	Peak Met	Deficit (-)	
	(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
2014-15	9,84,999	9,48,640	36,359	3.7	1,48,166	141,160	7006	4.7
2013-14	10,02,045	9,59,614	42,431	4.2	1,35,918	1,29,815	6,103	4.5
2012-13	995,557	908,652	86,905	8.7	135,453	123,294	12,159	9.0
2011-12	937,199	857,886	79,313	8.5	130,006	116,191	13,815	10.6
2010-11	861,591	788,355	73,236	8.5	122,287	110,256	12,031	9.8
2009-10	830,594	746,644	83,950	10.1	119,166	104,009	15,157	12.7

Note: figures of 2014-15 are upto 28th Feb. 2015(provisional)

1.74 As per 18th Electric Power Survey (EPS) of India conducted by Central Electricity Authority, the Electric Energy Requirement (EER) and Annual Peak Electric Load (APEL) of the country for 12th Five Year Plan period and beyond have been assessed. The forecasting of electricity demand is made to carry out realistic integrated planning exercises for addition of new electricity generation capacity, transmission and distribution systems and fuel requirement. As per 18th EPS, the All India electrical energy requirement (MU) and peak electric load (MW) for 12th Plan is given below:

Table: 1.74 – All India electrical energy requirement and peak electric load for the 12th Plan

Year	EER (MU)	APEL (MW)
2012-13	1007694	143967
2013-14	1084610	156208
2014-15	1167731	169491
2015-16	1257589	183902
2016-17	1354874	199540

1.75 On being asked by the Committee about the steps being taken by the Government to meet these demands, the Ministry stated as under:

"The steps being taken by the Government to meet the gap, inter alia are:

(i) Acceleration in generation capacity addition during 12th Plan with a proposed target of 88,537 MW from conventional sources and 30000 MW from renewable energy sources.
(ii) Undertaking a massive programme for strengthening an inter-State and inter-regional transmission capacity for evacuation of power.
(iii) A new scheme has been announced in this year's budget for strengthening of sub-transmission and distribution networks and for segregation of agricultural feeders.
(iv) Expeditiously resolving issues relating to environmental and forest clearances for power projects under implementation.
(v) Bridging the gap of indigenous coal availability through coal import for increased generation by thermal plants.
(vi) Promoting energy conservation, energy efficiency and demand side management measures."

1.76 As per 18th EPS, All India Electrical Energy requirement by the end of the 12th Plan 2016-17) would be 1354874 MUs (for utilities). By end of 12th Plan (Year 2016-17), the per capita electricity consumption of the country is assessed to be around 1280 kWh. The per capita power consumption in the country for the year 2013-14 is 957 kWh [Per Capita Consumption = (Gross Generation+ Net Import)/ Mid Year Population]. The corresponding per capita power consumption in certain developed countries of the world vis-à-vis India for the year 2012 is given below:

Table: 1.76 – Per capita power consumption in various countries

Country	Per capita power consumption (kWh)
Australia	10218
China	3488
France	7367
Germany	7138
Japan	7753
Russia	6602
United Kingdom	5452
United States	12947
India *	914

1.77 Generation Target vis-à-vis Achievement and % Growth for 12th plan years 2012-13, 2013-14 and 2014-15 are as under:

Table: 1.77 – Power Generation during 12th Plan– Targets and Achievement

Year	Target (BU)	Achievement (BU)	Target %	Growth %
2012-2013	930.000	912.057	98.1	4.0
2013-2014	975.000	967.150	99.2	6.0
2014-2015*	933.427	961.778	103.0	9.0

*Upto Feb 2015 (provisional)

1.78 The details of sector wise power generation for the years 2013-14 and 2014-15 are as under:

Table: 1.78 – Sector wise power generation for the year 2013-14 and 2014-15

Sector	2013-14		2014-15 (up to -Feb 15)*	
	Generation (MU)	% share	Generation (MU)	% share
Central	384905.18	39.80	361184.14	37.55
State	350402.7	36.23	336555.7	34.99
Private	226244.56	23.39	259086.72	26.94
Bhutan Import	5597.9	0.58	4951.39	0.51
Grand Total	**967150.34**	**100**	**961777.95**	**100**

1.79 The details of Peak Shortage and Energy Deficiency position during the last three years are as under:

Table: 1.79– Peak Shortage and Energy Deficiency during the last three years

Peak Shortage			
Year	Peak Demand	Peak Demand Met	Peak Shortage
2012-13	135453	123294	-9.0%
2013-14	135918	129815	-4.5%
2014-15*	148166	141160	-4.7%
Energy Deficit			
2012-13	995.557	908.652	-8.7%
2013-14	1002.257	959.829	-4.2%
2014-15*	1073.926	1035.347	-3.6%

* Provisional

1.80 When the Committee asked for the details of the thermal power stations where generation was lower than the optimum capacity, the Ministry in their reply stated that the data for the year 2014-15 would only be compiled after completion of the year.

1.81 The Plant Load Factor (PLF) of Thermal Power Stations is an index of utilization of the installed capacity. The average PLF of Thermal Power Station of Power Utilities during (April-November, 2014) was 65.1%. The sector wise and overall PLF since 2007-08 was as under:

Table: 1.81 – Plant Load Factor of Thermal Power Stations

Year	Central (%)	State (%)	Private Utilities (%)	Overall (%)
2007-08	86.7	71.9	90.8	78.6
2008-09	84.3	71.2	91.0	77.2
2009-10	85.5	70.9	82.4	77.5
2010-11	85.1	66.7	76.7	75.1
2011-12	82.1	68.0	76.2	73.3
2012-13	79.2	65.6	64.1	69.9
2013-14	76.1	59.1	62.1	65.6
2014-15*	73.3	59.7	63.4	65.1

* Provisional.

1.82 The Committee during the sitting on the subject raised the issue of low PLF of power plants in the Country especially gas based thermal power projects. They asked as to why gas based power plants were allowed to be set up when there is so much of scarcity of gas in the Country, the Secretary, the Ministry of Power explained as under:

> "इतिहास में जाएं, 2000 से 2008-09 के पीरियड में कई डिस्कवरीज़ केजी बेसिन में हुई। मैं रिलायंस की डिस्कवरी की बात नहीं कह रहा हूं। I am not singling out anybody. रिलायंस, ओएनजीसी, जीएसपी की केजी बेसिन में डिस्कवरी हुई। आपको याद होगा कि सबने बड़े टौल क्लेम्स किए। जीएसपी ने कहा कि 20 टीसीएफ गैस डिसकवरी की है। ओएनजीसी ने भी ऐसा ही नंबर बताया था। रिलायंस ने 2007 में शुरु किया और कहा कि हम 120 एमएम एससीएमडी तक चले जाएंगे। लेकिन जब एक्चुअल मूल्यांकन हुआ तो नंबर घटते चले गए। उस समय उम्मीद जगी इसलिए पावर प्लांट आने शुरु हो गए।

उन्हें लगा कि देश में गैस है। Even though, they did not have a firm allocation. बैंकों ने उन्हें लोन देना चालू रखा। प्लांट बनकर तैयार हो गए। आज की स्थिति यह है कि जिनके पास फर्म एलोकेशन था, उनको भी केजी बेसिन से जीरो गैस मिल रही है और जो बनकर तैयार हो गए उनका तो सवाल ही नहीं है। उनको एक तरह से बेलआउट करने के लिए, रिवाइव करने के लिए योजना की संरचना की गई है।"

1.83 He further stated:

"Just two weeks back, the Cabinet has approved a scheme for reviving the stranded gas-based plants. The capacity of gas based plants in the Country is 9 per cent of the total capacity. देश में टोटल गैस बेस कैपिसिटी 27,000 मेगावाट है। इसमें से 24,000 मेगावाट गैस ग्रिड से कनैक्टिड है, गैस पाइपलाइन से कनैक्टिड है। इसमें से 14,000 मेगावाट ऐसी है जो बिल्कुल जीरो PLF पर ऑपरेट करती है। इसमें कुछ कमीशन्ड भी हैं। 10,000 मेगावाट ऐसे हैं जो सब ऑप्टीमल पीएलएफ पर काम कर रहे हैं, कोई 40 पर कर रहा है, कोई 60 पर कर रहा है। डोमेस्टिक गैस प्रोडक्शन अगले दो साल में बढ़ने वाली नहीं है, पेट्रोलियम मिनिस्ट्री ने ऐसा बताया है। हमने योजना बनाई है कि इसके अंतर्गत आरएलएनजी इम्पोर्ट करेंगे। यह अब अंतराष्ट्रीय बाजार में सस्ती हो गई है। दस डॉलर प्रति एमएमबीटीयू की रेंज में आ गई है जो पहले 16 डॉलर की रेंज में थी। आरएनएलजी इम्पोर्ट करेंगे और जितने स्टेक होल्डर्स हैं, उन्होंने सैक्रीफाइस किया है। इसमें आंध्र प्रदेश शामिल है, हेमागिरी एरिया में ज्यादा प्लांट्स हैं, आंध्र प्रदेश में ही 14,000 मेगावाट में से 6,000 मेगावाट के प्लांट्स हैं। उदाहरण के लिए राज्य सरकार ने यह सैक्रीफाइस किया कि इस नई योजना में जो इन्क्रीमेंटल आरएलएनजी आएगी, उस पर वैट चार्ज नहीं करेंगे। उस पर ऑप्ट्राए चार्ज नहीं करेंगे। सैंट्रल गवर्नमेंट ने यह सैक्रीफाइस किया कि हम सर्विस टैक्स नहीं लेंगे, गेल एल एन जी का ट्रांसपोर्टेशन करता है। उसके रिगैसीफिकेशन टर्मिनल पर एलएनजी का रिगैसीफिकेशन होता है, उस पर सर्विस् टैक्स नहीं लेंगे। इसी तरह गेल ने सैक्रीफाइस किया कि ट्रांसपोर्टेशन टैरिफ को 50 परसेंट माफ कर देंगे और मार्केटिंग मार्जिन को 75 परसेंट माफ कर देंगे। रिगैसिफिकेशन टर्मिनल से यह सैक्रीफाइस किया कि हम अपने रिगैसिफिकेशन चार्जिस को 50 परसेंट माफ कर देंगे। सभी प्रमोटर्स यानी ओनर्स ने सैक्रीफाइस किया कि हम कोई रिटर्न ऑन इक्विटी नहीं लेंगे। हमें सिर्फ ओ ऍंड एम कॉस्ट, गैस प्लांट को चलाने का कॉस्ट और बैंक को जो डैट सर्विस करनी है, दो चीजें दीजिए। हमने सबके साथ बैठकर सैक्रीफाइस कराया तो भी जो पावर टैरिफ आ रही थी वह साढ़े छः रुपए थी। इससे भी काम नहीं चला। हमने प्रेजेंटेशन में पावर सिस्टम डैवलपमेंट फंड का जिक्र किया था, इसमें से 3000 करोड़ की धनराशि निर्धारित की कि यह सपोर्ट के रूप में डिसकॉम को देंगे ताकि पावर साढ़े पांच पर खरीद सके और कम से कम जो प्लांट नहीं चल रहे हैं, वे चलें। तब जाकर टैरिफ साढ़े पांच पर आई, यह स्कीम एक रिवर्स बिडिंग के माध्यम से ऑपरेट करेगी। हमें उम्मीद हैं कि अप्रैल के अंत तक बिडिंग की व्यवस्था शुरु हो जाएगी। मई के अंत तक प्लांट्स को रिलीफ मिलने लगेगा, देश को एडीशनल जनरेशन मिलेगा। इसका सबसे बड़ा बेनिफिशरी आंध्र प्रदेश होगा क्योंकि 14,000 मेगावाट में से 6,000 मेगावाट हेमागिरी एरिया में है।"

1.84 When the Committee inquired as to how much power can be generated (in billion units) with the present generation installed capacity, assuming there is no deficiency of fuel viz. coal or gas, the Ministry in their written reply have furnished the information as under:

Table: 1.84 – The maximum power generated (in billion units) from thermal units

Fuel	Monitored Capacity as on 28.02.2015 MW	Maximum possible generation BU	Monitored Capacity as on 31.03.2014 MW	Maximum possible generation BU
Coal	149904.50	1116.189	139474.50	1038.527
Lignite	5860.00	43.634	5610.00	41.772
Multi Fuel	60.00	0.447	60.00	0.447
Natural Gas	21870.17	172.424	20680.77	163.047
Naptha	791.58	6.241	791.58	6.241
High Speed Diesel	255.00	2.010	255.00	2.010
Diesel	993.57	7.833	993.57	7.833
Thermal Total	179734.82	1348.778	167865.42	1259.878

Note: Considering 15% outages due to planned maintenance and forced outage for coal/lignite stations and 10 % outage for gas, liquid fuel based stations."

1.85 When the Committee enquired as to why the provision of providing electricity within the vicinity of 5 KM of a power plant, is not being implemented, the Secretary Power replied as under:

> "पहले जी.ओ. हुआ था कि पाँच किलोमीटर के अंतर्गत पावर प्लांट बिजली देगा। लेकिन वह निर्णय वापस ले लिया गया क्योंकि वह इम्प्लीमेंट नहीं हो पाया। वह इसलिए नहीं हो पाया क्योंकि डिस्कॉम्स इसे कभी नहीं करेंगे। डिस्ट्रीब्यूशन का काम तो डिस्कॉम्स के हाथ में है, वह पावर प्लांट के हाथ में नहीं होता है। इसलिए यह जरूरी है कि जिस परिधि में डिस्ट्रीब्यूशन की व्यवस्था है, वह उस कंपनी को ही दी जाए, जो कंपनी पावर प्लांट चला रही है। इसी बात को मद्देनज़र रखते हुए, इलेक्ट्रिसिटी ऐक्ट में अमेंडमेंट के लिए प्रपोजल आपके समक्ष विचाराधीन है। उसमें यदि आप नोटिस करें, तो एक यह भी प्रपोजल है कि कोई भी जेनेरेटिंग कंपनी डिस्ट्रीब्यूशन का लाइसेंस प्राप्त कर सकती है। उसके पीछे उद्देश्य यही है। जब एक बार वह ऐक्ट पास हो जाएगा, तो हम यह व्यवस्था लाएंगे कि जेनेरेटिंग कंपनी पाँच-दस किलोमीटर की परिधि में डिस्ट्रीब्यूशन का भी काम करे।"

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Part – II

Observations/ recommendations of the Committee

Annual Plan Outlay

1. The Committee while scrutinizing the Gross Budgetary Support (GBS) for the year 2015-16 note that against the sought outlay of Rs. 19,243.46 crore (GBS component), the Ministry of Finance approved the allocation of Rs. 6,799.43 crore only. Though the budgetary cut is across the board, two heads *viz*. Integrated Power Development Scheme (IPDS) – and Power Sector Development Funds are most affected. Even the Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY) got only Rs. 4,500 crore against the demand of Rs. 9,000 crore. The Committee feel that there is hardly any need to expound the importance of the development of electricity sector for overall growth of the Country. The Committee, therefore, express their concern over the approval of lesser than demanded budgetary allocation by the Ministry of Finance. However, the Secretary, Ministry of Power during the evidence apprised the Committee that though they would have liked to have more budgetary provisions for two flagship programmes of the Ministry of Power i.e. DDUGJY and IPDS, nonetheless, they have got a reasonable assurance from the Ministry of Finance of providing more budgetary provision at the RE stage depending on the progress of expenditure. **The Committee, therefore, urge that the Ministry of Power continue to accelerate the momentum of execution of their programmes and utilize the fund as per their**

demanded budgetary allocation and request the Ministry of Finance to provide more allocation to the Ministry of Power at the stage of RE if the Ministry of Power so requires.

(Recommendation Sl. No.1, Para No.1)

2. The Committee note that from 2011-12 to 2014-15, the Ministry was allocated Rs. 9,642 crore every year. Notably, against the allocation, their actual expenditure for the said period was Rs. 4,827.35 crore, Rs. 6,063.59 crore, Rs. 5,180.53 crore and Rs. 4,999.59 crore respectively. The Committee, therefore, believe that this could be the prime reason for the Ministry of Finance for not acceding to the proposed demand of Rs. 19,243.46 of the Ministry. The Committee are concerned with the constant under-utilization of the funds allocated to the Ministry of Power. The Committee were informed that the under utilization of fund by the Ministry was due to non finalization of various new schemes and since, the said schemes have now been finalized, there would be optimum utilization of funds. **The Committee, therefore, recommend that the Ministry strengthen their monitoring mechanism and also review and revamp their planning process. The Committee also recommend that the Ministry may put indefatigable efforts in ensuring the timely utilization of the funds allocated to them so that they could justifiably put up further demands at the time of Revised Estimates.**

(Recommendation Sl. No.2, Para No.2)

12th Five Year Plan

3. The Committee note that there is an outlay of Rs. 4,40,795.85 crore for Central Power Sector for the 12th Five Year Plan. This comprise Rs. 3,86,516.84 crore of Internal & Extra Budgetary Resources (IEBR) to be raised by the Central Power Sector Undertakings themselves and Rs. 54,279.00 crore of Gross Budgetary Support (GBS). The actual utilization upto 31.01.2015, during the 12th Plan period is Rs 1,51,177.78 crore including Rs 1,39,485.04 crore as IEBR and Rs 11,692.74 crore as GBS. The Committee feel that the achievements so far are far from being satisfactory. The Committee further note that the major segment of IEBR i.e. Rs. 2,19,612.50 crore pertains to NTPC. However, their achievement till said date is only Rs. 57,104.70 crore leaving a gap of Rs. 1,62,507.80 crore. Since, only two years are left in the ongoing 12th Plan period, it is very unlikely that the target of Rs. 2,19,612.50 crore in respect of NTPC is going to be achieved. The Committee do not concur with the argument of Secretary, Power that this is the result of ambitious planning by the CPSUs at the beginning of a Five Year Plan which usually does not get realized. The Committee believe that the target of Rs. 2,19,612.50 crore for NTPC was not insurmountable and the Public Sector Undertaking such as NTPC has capability to achieve this. Even the PowerGrid a counterpart CPSU of NTPC has managed to put up a good performance by achieving Rs. 60,815 crore so far against the target of Rs. 1,02,034 crore. The Committee are of the firm view that in attaining the goal of electricity for all in the

country, the giant CPSUs such as NTPC has to perform exceedingly well. **The Committee, therefore recommend that the Ministry may provide all possible assistance to NTPC to improve its performance so that they can reach at least near to Rs. 2,19,612.50 crore targets if the same is not fully achieved.**

(Recommendation Sl. No.3, Para No.3)

Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

4. The Committee note that the Government has initiated a new scheme called Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) subsuming the erstwhile Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) which was launched with a goal of providing access to electricity to all households in the Country. DDUGJY, apart from rural electrification envisages the separation of agriculture and non-agriculture feeders and strengthening and augmentation of sub-transmission & distribution infrastructure in rural areas. The Committee believe that these two new components in this schemes complements the main objective of rural electrification, therefore, would be helpful in electrifying all the villages on the sustainable basis. The Committee are also pleased to note that their recommendation of covering all the villages irrespective of any population criteria has been had been accepted by the Ministry and they have made such provision in DDUGJY. Since DDUGJY is a new scheme, the effectiveness of its

provisions is yet to stand the test of time. **The Committee, however, would like to recommend the Ministry to ensure that the problems that marred the erstwhile RGGVY should not crop up in this new scheme.**

(Recommendation Sl. No.4, Para No.4)

Integrated Power Development Scheme (IPDS)

5. The Committee note that Integrated Power Development Scheme (IPDS) is a new scheme launched by the Ministry by subsuming the erstwhile Restructured – Accelerated Power Development and Reforms Programme (R-APDRP) as its one of the three components. The other two components are strengthening of sub-transmission & distribution network in the urban areas and metering of distribution transformers/feeders/consumers in the urban areas. This scheme like its predecessor envisages for reduction of AT&C losses to 15%. Accelerated Power Development and Reforms Programme was Re-structured and was approved as Central Sector Scheme on 31.07.2008 with total outlay of Rs. 51,577 crores to reduce the AT&C losses to the level of 15%. However, the scheme in 5 years could manage to reduce only 2% AT&C losses from 27.47% in the year 2008-09 to 25.38% in the year 2012-13. The Committee have also time and again recommended the Government to review the programme as the same was not producing the desired results. The Government now

has reinvented this programme with identical goal of bringing down AT&C losses to the level of 15%. Since, the IPDS has been finalized recently, it is yet to be seen as to what extent the programme is more effective than its predecessor in reducing the AT&C losses. **The Committee, therefore, recommend that the Ministry should provide an explicit timeline for implementation of the IPDS and like DDUGJY, the year by which the prime goal of IPDS *i.e.* reduction of AT&C losses to 15%, will be achieved.**

(Recommendation Sl. No.5, Para No.5)

6. The Committee also note that the Ministry still not have separate data for Technical and Distribution losses. AT&C losses include technical losses due to energy dissipated in the conductors and equipment used for transmission, transformation and distribution of power, whereas, commercial loses are due to pilferage of energy by hooking of lines and bypassing the meters, defective meters, errors in meter reading, etc. The technical losses are inherent in a system and cannot be eliminated entirely but can be reduced to a certain level while commercial losses which have the major share in AT&C losses could be eliminated completely. Since the AT&C losses are mix of these two, the Committee believe that having separate data for technical losses and

distribution losses will be instrumental in reduction of avoidable commercial losses. **The Committee, therefore, recommend the Ministry to expeditiously prepare separate data for technical losses and commercial losses.**

(Recommendation Sl. No.6, Para No.6)

Capacity Addition Programme

7. The Committee note that a target of 88,537 MW of power generation capacity addition was set for the 12th Five Year Plan period. They further note that against this target, a generation capacity of 54,383 MW has been added till 28.02.2015. The Committee are glad that more than 60% of the total targets are achieved in the first three years of the plan. However, when the Committee scrutinized the data of the Ministry closely, it has been revealed that it is the Private Sector whose exceptional performance during the said period is responsible for such good performance in overall generation capacity addition programme. The Private Sector, so far, have achieved a remarkable 72% of the total target. However, on the other hand, dismal performance of the Central Sector is continuing in the 12th Plan also. Their achievement so far i.e. 40% is the lowest of the three sector *viz*. Central, State and Private. The Committee are anguished over the incessant poor performance of the Central Sector since the 11th Plan period. This is so when the slipped projects of 11th Plan have also been

counted in their performance in the 12th Plan so far. The Committee also observe that ever since the Private Sector has started to increase their pace in capacity addition, the Central Sector has slowed down. The Ministry has been enumerating various reasons that they blame for such poor performances. The Committee, however, hardly find them convincing as the same problems are also being faced by the Private Sector and even then they are coming up with such impressive figure consistently since the 11th Plan period. **The Committee, therefore, recommend that the declining performance of Central Sector be taken seriously and the utmost efforts be made by the Ministry to reinstate this sector in the race of generation capacity addition.**

(Recommendation Sl. No.7, Para No.7)

8. The Committee note that against the target of 1,07,440 ckm for the 12th Five Year Plan period, the achievement till February, 2014 is 51,635 ckm. The Committee also note that there has been a massive generation capacity addition in the Country and a number of power generation project are under execution or at planning stage. Due to advent of Private Sector in generation sector and enabling environment for setting up of New and Renewable Energy projects, the power sector of the Country has set to grow at a rapid pace. Since, this huge generation capacity will need transmission lines of the matching capacity to distribute the electricity generated to all corners of the Country. The Committee also feel that the planning for transmission

should not only done with the generation projects but also the execution of the transmission should be ahead of the generation. **The Committee, therefore, recommend to the Government to expedite the pace of work to ensure that the targets set for the 12th Plan are fully achieved. The Committee are also of the view that the Government should examine the feasibility of identifying major/important transmission corridors which will be needed in the coming years/decades and starting the groundwork prospectively to ensure that inadequacy of transmission capacity does not become a bottleneck for transmission of electricity across the Country.**

(Recommendation Sl. No.8, Para No.8)

Hydro Power Sector

9. The Committee note that only 1,895 MW of hydro power generation capacity could be added, whereas, in thermal sector the generation capacity addition is as high as 51,488 MW during the 12th Plan so far. The Committee have time and again been expressing their anguish over sluggish execution of hydro generation capacity resulting into falling share of hydro in total energy mix. The hydro power share in terms of installed capacity (MW) was 43.50% in the year 1970. At present the hydro power share is about 15.8%. The Committee have been informed by the Ministry that since hydro projects have longer gestation period, it takes longer time in their completion. Also most of the potential lies in the remote reaches of Himalayas. The

Ministry has also enumerated the provisions made and the steps taken for the growth of hydro sector. The Committee, however, finds that since, 11th Five Year Plan there has been a visible slowdown in hydro sector. Even the Private Sector whose performance in thermal sector as far as capacity addition is concern is par excellence, could manage to add a meager 169 MW of hydro power generation capacity so far in the 12th Plan. The Committee, therefore, are inclined to infer that the present policies relating to hydro power sector are ineffective as they have failed to bring any positive change in the sector. **The Committee recommend that the Government should thoroughly review the present policies related to hydro power sector to provide much needed impetus to this sector. The Committee also recommend that if the hydro sector is that difficult to develop and so unlucrative, then the Government should try to incentivize this sector through various interventions.**

(Recommendation Sl. No.9, Para No.9)

Development of Power Sector

10. The Committee note that the total installed generation capacity as on 28th February, 2015 is 2,61,006.46 MW. As per the information provided by the Ministry, the maximum power that could be generated by the thermal power plants during preceding year (upto February, 2015) has been assessed to be 1,348.7 billion units

had there been no shortage of fuel for power stations. However, the actual generation in the preceding year has only been 1,035.34, paucity of fuel being the prime reason for the deficiency. Interestingly, the total energy requirement during the preceding year has been calculated at 1,073.9 billion units. It is apparent that had there been no shortage of fuel for the power stations, there would have been a situation of surplus power in the Country. The power plants of the country are struggling with acute shortages of fuel be it coal or gas. The overall Plant Load Factor has consistently been falling from 78.6% in the year 2007-08 to 65.1% in 2014-15. The Committee are deeply concerned with this state of affair as this not only create energy deficiency in the country but also result in wastage of generation capacity. Moreover, running of power stations at sub-optimum level also increases the per unit generation cost. The Committee believe that this situation is not good for energy starved country like us. **The Committee, therefore, recommend that the Government should take up this matter at the earliest possible time at highest level to find a long term solution rather ad hoc provision like importing increased amount of coal for a year or two.**

(Recommendation Sl. No.10, Para No.10)

11. The Committee are distressed to note that there is 27,000 MW of gas based power generation capacity in the Country. Out of these 24,000 MW is connected to the grids which are presently operating at 0% to 60% PLF. The Committee have been

apprised that as per Ministry of Petroleum there is no possibility of increasing domestic gas production for next two years. The Committee have been further informed that in view of this the Cabinet has approved a scheme for reviving the stranded gas-based power plants, wherein, all the stakeholders *viz*. Central Government, State Governments, GAIL and the Promoters have agreed to sacrifice something to bring down the tariff of gas bases power plants which are proposed to run on imported RLNG. The Ministry has further informed the Committee that a provision of Rs. 3,000 crore out of Power System Development Fund has been made to provide assistance to Discomes to purchase this power which has slightly higher tariff. **The Committee, considering that this scheme will give relief not only to stranded gas based power plants but will also provide additional power generation to the Country, endorse this scheme and expect its earliest implementation.**

(Recommendation Sl. No.11, Para No.11)

12. The Committee note that the order of Government of India, which has the provision that a Power Generating Company will provide electricity within its vicinity of 5 Km, has been withdrawn due to its non-implementability. In regard to reason for non-implementation of this order, the Ministry has informed that since Power Plant Company do not have distribution licensess, they have to depend on the Distribution Companies for providing electricity in the vicinity of power plants. However, the

Discoms are not interested in doing so. The Ministry has further informed that to address this issue they have proposed an amendment in the Electricity Act, 2003, which provides for obtaining of distribution license by a generating company also. They have further stated that once, this amendment is incorporated in the Act, we will make a provision that generation company can do distribution work within the radius of 5-10 Km. **The Committee are in agreement with the proposal of the Ministry and recommend its expeditious implementation after incorporating of the proposed amendment in the Act.**

(Recommendation Sl. No.12, Para No.12)

New Delhi;
24th April, 2015
Vaishakha 4, 1937 (Saka)

DR. KIRIT SOMAIYA
Chairman,
Standing Committee on Energy

DEMAND NO. 77

Ministry of Power

A. The Budget allocations, net of recoveries and receipts, are given below:

(In crores of Rupees)

	Major Head	Actual 2013-2014			Budget 2014-2015			Revised 2014-2015			Budget 2015-2016		
		Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
	Revenue	3046.51	404.93	3451.44	7570.50	-98.10	7472.40	4317.31	-102.00	4215.31	5841.44	-74.81	5766.63
	Capital	*1475.58*	*...*	*1475.58*	*2071.50*	*...*	*2071.50*	*1382.69*	*...*	*1382.69*	*958.30*	*1.00*	*959.30*
	Total	**4522.09**	**404.93**	**4927.02**	**9642.00**	**-98.10**	**9543.90**	**5700.00**	**-102.00**	**5598.00**	**6799.74**	**-73.81**	**6725.93**
1. Secretariat-Economic Services	3451	0.75	25.27	26.02	0.75	28.75	29.50	0.75	28.06	28.81	1.24	30.47	31.71
2. Accounting Adjustment of Interest													
2.01 Tehri Hydro Development Corporation (THDC)	2801	...	...	...	...	...	...	...	91.85	91.85	...	...	...
2.02 Receipts Netted	0049	...	...	...	...	...	...	...	-91.85	-91.85	...	...	...
	Net	...	...	...	...	...	...	...	...	...	...	...	...
Power													
General													
3. Central Electricity Authority	2801	0.95	69.21	70.16	45.29	74.56	119.85	15.00	73.00	88.00	28.70	79.41	108.11
	4801	1.17	...	1.17	1.00	...	1.00	0.28	...	0.28	1.30	...	1.30
	Total	*2.12*	*69.21*	*71.33*	*46.29*	*74.56*	*120.85*	*15.28*	*73.00*	*88.28*	*30.00*	*79.41*	*109.41*
4. Research and Development													
4.01 Central Power Research Institute, Bengaluru	2801	17.76	...	17.76	295.53	...	295.53	79.82	...	79.82	125.00	...	125.00
5. Training													
5.01 National Power Training Institute (NPTI)	2801	3.63	6.40	10.03	60.52	6.40	66.92	12.70	6.40	19.10	40.00	6.40	46.40
6. Setting up of JERC for Manipur & Mizoram	2801	...	...	...	...	...	...	...	...	...	...	...	...
7. Central Electricity Regulatory Commission													
7.01 CERC Fund	2801	...	31.70	31.70	...	40.30	40.30	...	40.30	40.30	...	44.33	44.33
7.02 Amount met from CERC Fund	2801	...	-31.70	-31.70	...	-40.30	-40.30	...	-40.30	-40.30	...	-44.33	-44.33
	Net	...	...	...	...	...	...	...	...	...	...	...	...
8. National Investment Fund (NIF)													
8.01 Transfer to National Investment Fund	2801	...	...	...	...	...	...	...	...	...	...	...	...
8.02 Amount met from NIF for Subsidy for Rural Electrification - RGGVY	2801	...	...	...	...	...	...	...	...	...	...	...	...

	Major Head	Actual 2013-2014			Budget 2014-2015			Revised 2014-2015			Budget 2015-2016		
		Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
Net		...	...	...	...	...	...	...	...	...	...	...	...
9. Subsidy for Rural Electrification-RGGVY	2801	2938.52	...	2938.52	4850.10	...	4850.10	2740.09	...	2740.09	...	...	...
10. Rural Electrification - DDUGJY	2801	...	...	...	...	...	...	...	...	...	4320.00	...	4320.00
11. Funds for Evaluation Studies and Consultancy	2801	...	...	...	1.50	...	1.50	0.16	...	0.16	0.30	...	0.30
12. Appellate Tribunal for Electricity	2801	...	8.13	8.13	...	9.79	9.79	...	8.79	8.79	...	10.15	10.15
13. Setting up of Joint JERC for UTs and Goa	2801	...	5.50	5.50	...	6.00	6.00	...	5.50	5.50	...	6.33	6.33
14. Comprehensive Award Scheme for Power Sector	2801	0.66	...	0.66	1.00	...	1.00	1.00	...	1.00	1.00	...	1.00
15. Energy Conservation	2801	16.00	...	16.00	107.65	...	107.65	40.72	...	40.72	60.00	...	60.00
16. Bureau of Energy Efficiency													
16.01 Non EAP Component	2801	64.12	...	64.12	137.55	...	137.55	9.00	...	9.00	48.00	...	48.00
16.02 EAP Component	2801	2.60	...	2.60	2.00	...	2.00	1.00	...	1.00	2.00	...	2.00
Total- Bureau of Energy Efficiency		*66.72*	*...*	*66.72*	*139.55*	*...*	*139.55*	*10.00*	*...*	*10.00*	*50.00*	*...*	*50.00*
17. APDRP	2801	8.70	...	8.70	144.50	...	144.50	16.78	...	16.78	...	...	...
18. Assistance to Forum of Regulator Capicity Building	2801	0.45	...	0.45	2.25	...	2.25	1.00	...	1.00	1.00	...	1.00
19. LahoriNagpala HEP	2801	...	536.30	536.30	...	...	...	...	...	...	...	...	...
20. Financial Support for Debt Restructuring of DISCOMs	2801	...	...	...	400.00	...	400.00	1.00	...	1.00	74.20	...	74.20
21. Loan to PFC for APDRP	6801	640.00	...	640.00	963.59	...	963.59	445.79	...	445.79	...	...	...
22. Loan to PFC for IPDS	6801	...	...	...	...	...	...	...	...	...	384.00	...	384.00
23. Interest Subsidy to National Electricity Fund	2801	...	...	...	50.69	...	50.69	1.00	...	1.00	20.00	...	20.00
24. Tehri Hydro Development Corporation India Ltd.	4801	30.00	...	30.00	62.92	...	62.92	55.79	...	55.79	30.00	...	30.00
25. Acquisition of Coal bearing Areas for NTPC	4801	301.45	...	301.45	915.00	...	915.00	375.69	...	375.69	993.00	...	993.00
25.01 Deduct Recoveries	4801	-301.45	...	-301.45	-915.00	...	-915.00	-375.69	...	-375.69	-993.00	...	-993.00
Net		...	...	...	...	...	...	...	...	...	...	...	...
26. Capital Grant Support to DVC	4801	...	...	...	...	...	...	...	...	...	...	1.00	1.00
Total-General		**3724.56**	**625.54**	**4350.10**	**7126.09**	**96.75**	**7222.84**	**3421.13**	**93.69**	**3514.82**	**5135.50**	**103.29**	**5238.79**
Thermal Power Generation													
27. Badarpur Thermal Power Station													
27.01 Revenue Expenditure	2801	...	...	...	...	1.00	1.00	...	0.85	0.85	...	1.00	1.00
27.02 Less Revenue Receipts	0801	...	-245.88	-245.88	...	-224.60	-224.60	...	-224.60	-224.60	...	-208.57	-208.57
Net		...	*-245.88*	*-245.88*	...	*-223.60*	*-223.60*	...	*-223.75*	*-223.75*	...	*-207.57*	*-207.57*
Power Sector Reforms (Transmission and Distribution)													
28. Smart Grid	2801	...	...	...	1.00	...	1.00	1.00	...	1.00	40.00	...	40.00

	Major Head	Actual 2013-2014			Budget 2014-2015			Revised 2014-2015			Budget 2015-2016		
		Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
29. Power Sector Support to NCT of Delhi	3602	...	...	...	200.00	...	200.00	200.00	...	200.00	...	...	...
30. Deendayal Upadyaya Feeder Separation Scheme	2801	...	...	...	500.00	...	500.00	500.00	...	500.00	...	...	...
31. Integrated Power Development Scheme	2801	...	...	...	100.00	...	100.00	100.00	...	100.00	191.00	...	191.00
32. Power System Operation Company (POSOCO)	4801	...	...	...	1.00	...	1.00	1.00	...	1.00	1.00	...	1.00
33. 220 KV Transmission Line from Srinagar to Leh via Kargil	4801	65.40	...	65.40	268.14	...	268.14	268.14	...	268.14	250.00	...	250.00
34. Green Energy Corridor	4801	...	...	...	1.00	...	1.00	1.00	...	1.00	1.00	...	1.00
35. Power System Development Fund (PSDF)													
35.01 Transfer to Power System Development Fund (PSDF)	2801	...	...	...	1.00	...	1.00	200.00	...	200.00	300.00	...	300.00
35.02 Scheme for Power System Development to be met from PSDF	2801	...	...	...	1.00	...	1.00	200.00	...	200.00	300.00	...	300.00
35.03 Amount met from Power System Development Fund	2801	...	...	...	-1.00	...	-1.00	-200.00	...	-200.00	-300.00	...	-300.00
Net		...	...	...	*1.00*	...	*1.00*	*200.00*	...	*200.00*	*300.00*	...	*300.00*
36. Lumpsum provision for Project/Schemes for the benefit of NE Region & Sikkim													
36.01 Subsidy for Rural Electrification-RGGVY	2552	...	...	...	293.99	...	293.99	146.29	...	146.29	...	...	...
36.02 Rural Electrification-DDUGJY	2552	...	...	...	...	...	...	...	...	...	180.00	...	180.00
36.03 Improvement of power system project in six North Eastern States exlcuding Arunachal Pradesh and Sikkim	2552	...	...	...	200.00	...	200.00	150.00	...	150.00	...	...	...
36.03.01 Non-EAP Component	2552	...	...	...	...	...	...	...	...	...	200.00	...	200.00
36.03.02 EAP Component	2552	...	...	...	...	...	...	...	...	...	50.00	...	50.00
Total- Improvement of power system project in six North Eastern States exlcuding Arunachal Pradesh and Sikkim		...	...	...	*200.00*	...	*200.00*	*150.00*	...	*150.00*	*250.00*	...	*250.00*
36.04 Loan to PFC under APDRP	6552	...	...	...	152.95	...	152.95	132.68	...	132.68	...	...	...
36.05 Integrated Power Development Scheme	2552	...	...	...	...	...	...	...	...	...	9.00	...	9.00
36.06 Loan to PFC under IPDS	6552	...	...	...	...	...	...	...	...	...	16.00	...	16.00
36.07 Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	2552	...	...	...	175.18	...	175.18	100.00	...	100.00	150.00	...	150.00
36.08 Investment in Public Enterprises in N.E. Region	4552	...	...	...	142.10	...	142.10	41.03	...	41.03	74.00	...	74.00
36.09 Investment in Public Enterprises in N.E. Region	6552	...	...	...	...	...	...	...	...	...	1.00	...	1.00
Total- Lumpsum provision for Project/Schemes for		...	...	...	*964.22*	...	*964.22*	*570.00*	...	*570.00*	*680.00*	...	*680.00*

	Major Head	Actual 2013-2014			Budget 2014-2015			Revised 2014-2015			Budget 2015-2016		
		Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
the benefit of NE Region & Sikkim													
Total-Power Sector Reforms (Transmission and Distribution)		**65.40**	**...**	**65.40**	**2036.36**	**...**	**2036.36**	**1841.14**	**...**	**1841.14**	**1463.00**	**...**	**1463.00**
Total-Power		**3789.96**	**379.66**	**4169.62**	**9162.45**	**-126.85**	**9035.60**	**5262.27**	**-130.06**	**5132.21**	**6598.50**	**-104.28**	**6494.22**
37. Investment in Public Enterprises other than NE Region													
37.01 Investment in North Eastern Electric Power Corporation Ltd.	4801	62.34	...	62.34	...	...	...	...	...	...	...	...	...
37.02 Loans for Power Projects	6801	628.01	...	628.01	478.80	...	478.80	436.98	...	436.98	200.00	...	200.00
37.03 Loans to NEEPCO	6801	48.66	...	48.66	...	...	...	...	...	...	...	...	...
Total- Investment in Public Enterprises other than NE Region		*739.01*	*...*	*739.01*	*478.80*	*...*	*478.80*	*436.98*	*...*	*436.98*	*200.00*	*...*	*200.00*
38. Assistance to GNCT of Delhi to settle past DESU dues	7602	...	...	...	...	...	...	...	...	...	...	...	...
39. Actual Recoveries	2801	-7.63	...	-7.63	...	...	...	...	...	...	...	...	...
Grand Total		***4522.09***	***404.93***	***4927.02***	***9642.00***	***-98.10***	***9543.90***	***5700.00***	***-102.00***	***5598.00***	***6799.74***	***-73.81***	***6725.93***

	Head of Dev	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total
B. Investment in Public Enterprises													
34.01 National Thermal Power Corporation Ltd.	12801	...	21797.24	21797.24	...	22400.00	22400.00	...	22400.00	22400.00	...	23000.00	23000.00
34.02 National Hydro Electric Power Corporation Ltd.	12801	628.01	2591.02	3219.03	478.80	2745.46	3224.26	436.98	2108.78	2545.76	200.00	3979.89	4179.89
34.03 Damodar Valley Corporation Ltd.	12801	...	3004.63	3004.63	...	2764.99	2764.99	...	2286.73	2286.73	...	3682.93	3682.93
34.04 North Eastern Electric Power Corporation Ltd. (North Eastern Region Component)	12801	111.00	1447.19	1558.19	142.10	945.88	1087.98	41.03	1554.05	1595.08	75.00	1216.60	1291.60
34.05 Satluj Jal Vidyut Nigam Ltd.	12801	...	1054.05	1054.05	...	1091.93	1091.93	...	720.22	720.22	...	1175.00	1175.00
34.06 Tehri Hydro Development Corporation Ltd.	12801	30.00	374.30	404.30	62.92	793.76	856.68	55.79	718.40	774.19	30.00	1550.31	1580.31
34.07 Power Grid Corporation of India Ltd.	12801	...	23158.00	23158.00	...	20000.00	20000.00	...	20000.00	20000.00	...	20000.00	20000.00
Total		**769.01**	**53426.43**	**54195.44**	**683.82**	**50742.02**	**51425.84**	**533.80**	**49788.18**	**50321.98**	**305.00**	**54604.73**	**54909.73**
C. Plan Outlay													
1. Power	12801	4522.09	53426.43	57948.52	8677.78	50742.02	59419.80	5130.00	49788.18	54918.18	6119.74	54604.73	60724.47
2. North Eastern Areas	22552	...	...	...	964.22	...	964.22	570.00	...	570.00	680.00	...	680.00
Total		**4522.09**	**53426.43**	**57948.52**	**9642.00**	**50742.02**	**60384.02**	**5700.00**	**49788.18**	**55488.18**	**6799.74**	**54604.73**	**61404.47**

Annexure-II

S.No	State	No. of Inhabited Villages as per Census 2011	No. of electrified Villages	Un-electrified villages as confirmed by the States/discoms				
				Un-electrified Villages sanctioned under ongoing projects of erstwhile RGGVY	Remaining un-electrified villages to be sanctioned under DDUGJY			Grand Total
					Approved in the Monitoring Committee	DPRs to be submitted by States	Total	
1	Odisha	47677	43586	3144		947	947	4091
2	Bihar	39073	35021	4052		0		4052
3	Arunachal Pradesh	5258	3309	9		1940	1940	1949
4	Assam	25372	23643	1127		602	602	1729
5	Uttar Pradesh	97813	96350	1381		82	82	1463
6	Meghalaya	6459	5311	31		1117	1117	1148
7	Jharkhand	29492	28433	604		455	455	1059
8	Chhattisgarh	19567	18617	438		512	512	950
9	Manipur	2379	1615	271		493	493	764
10	Rajasthan	43264	42777	380		107	107	487
11	Madhya Pradesh	51929	51310	396	201	22	223	619
12	J &K	6337	6204	70		63	63	133
13	Nagaland	1400	1318	4		78	78	82
14	Himachal Pradesh	17882	17827	1	54	0	54	55
15	West Bengal	37463	37421	28	14	0	14	42
16	Mizoram	704	667	8		29	29	37
17	Tripura	863	833	30		0		30
18	Karnataka	27397	27389	0		8	8	8
19	Uttarakhand	15745	15744	1		0		1
20	Sikkim	425	424	0		1	1	1

21	Andhra Pradesh	26286	26286					
22	Gujarat	17843	17843					
23	Haryana	6642	6642					
24	Kerala	1017	1017					
25	Maharashtra	40956	40956					
26	Punjab	12168	12168					
27	Tamil Nadu	15049	15049					
	Sub Total	**596460**	**577760**	**11975**	**269**	**6456**	**6725**	**18700**
Uts (incl Goa & Delhi)		**1004**	**1004**					
	Total	**597464**	**578764**	**11975**	**269**	**6456**	**6725**	**18700**

Annexure-III

Please see annexure-14.2 of the replies.

Annexure-IV

Minutes