07

STANDING COMMITTEE ON ENERGY

(2020-21)

SEVENTEENTH LOK SABHA

MINISTRY OF POWER

DEMANDS FOR GRANTS
2021-22

SEVENTH REPORT

सत्यमेव जयते

LOK SABHA SECRETARIAT
NEW DELHI

March, 2021/ Phalguna, 1942 (Saka)

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STANDING COMMITTEE ON ENERGY
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(2021-22)

Presented to Lok Sabha on 08.03.2021

Laid in Rajya Sabha on 08.03.2021

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COMPOSITION OF THE STANDING COMMITTEE ON ENERGY(2020-21)

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27. Shri Surendra Singh Nagar
28. Dr. Sudhanshu Trivedi

29. Shri K.T.S. Tulsi
30. Vacant *
31. Vacant #

SECRETARIAT

1.	Shri R.C. Tiwari	Joint Secretary
2.	Shri R.K. Suryanarayanan	Director
3.	Shri Kulmohan Singh Arora	Additional Director
4.	Shri Manish Kumar	Committee Officer

^ Nominated as Member of the Committee w.e.f. 28.12.2020
** Vacant vice Shri Javed Ali Khan retired from Rajya Sabha on 25.11.2020*
 # Vacant since constitution of the Committee.

List of abbreviations

ACS	Average Cost of Supply
APDRP	Accelerated Power Development Reform Programme
APTEL	Appellate Tribunal for Electricity
ARR	Average Revenue Realized
AT&C	Aggregated Transmission and Commercial
BBMB	Bhakra Beas Management Board
BE	Budgetary Estimate
BEE	Bureau of Energy Efficiency
BOT	Build Operate Transfer
CapEx	Capital Expenditure
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CPRI	Central Power Research Institute
CPSU	Central Public Sector Undertaking
CPWD	Central Public Works Department
CTU	Central Transmission Utility
DDUGJY	Deendayal Upadhyaya Gram Jyoti Yojana
DISCOM	Distribution Company
DVC	Damodar Valley Corporation
EAP	External Aided Project
EBR	Extra Budgetary Resource
EESL	Energy Efficiency Services Limited
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interference
ESCO	Energy Service Company
FI	Financial Institution
FY	Financial Year
GBS	Gross Budgetary Support
GoI	Government of India
HEP	Hydro Electric Project
HT	High Tension
IEBR	Internal and Extra Budgetary Resources
IPDS	Integrated Power Development Scheme
IT	Information Technology

J&K	Jammu & Kashmir
JERC	Joint Electricity Regulatory Commission
LT	Low Tension
MDM	Meter Data Management
MoP	Ministry of Power
MOSP(IC)	Minister of State, Power (Independent Charge)
MVA	Mega Volt Ampere
NEEPCO	North Eastern Electric Power Corporation Limited
NER	North Eastern Region
NERPSIP	North Eastern Region Power System Improvement Project
NLDC	National Load Despatch Centre
NPTI	National Power Training Institute
NSGM	National Smart Grid Mission
NTPC	National Thermal Power Corporation
OM	Office Memorandum
OPEX	Operation Expenditure
PFC	Power Finance Corporation Limited
PGCIL	Power Grid Corporation of India Limited
PMDP	Prime Minister Development Package
PSDF	Power System Development Fund
PSU	Public Sector Undertaking
PV	Photo Voltaic
R-APDRP	Restructure-Accelerated Power Development Reform Programme
RE	Revised Estimate
REC	Rural Electrification Corporation Ltd.
RLDC	Regional Load Despatch Centres
SDMC	South Delhi Municipal Corporation
SLDC	State Load Despatch Centres
UTs	Union Territories

INTRODUCTION

I, the Chairperson, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this Seventh Report on Demands for Grants (2021-22) of the Ministry of Power.

2. The Committee examined the Demands for Grants under Rule 331E (1) (a) of the Rules of Procedure and Conduct of Business in Lok Sabha.

3. The Committee took oral evidence of the representatives of the Ministry of Power on 22nd February, 2021. 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.

4. The Report was considered and adopted by the Committee at their sitting held on 02nd March, 2021.

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

6. 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
02 March, 2021
Phalguna 11, 1942 (Saka)

RAJIV RANJAN SINGH alias LALAN SINGH
Chairperson,
Standing Committee on Energy

REPORT

PART-I

NARRATION ANALYSIS

I. INTRODUCTORY

1.1 Electricity is a concurrent subject at Entry 38 in List III of the seventh Schedule of the Constitution of India. The Ministry of Power is primarily responsible for the development of electrical energy in the country. The Ministry's responsibility *inter-alia* includes perspective planning, policy formulation, processing of projects for investment decision, monitoring of the implementation of power projects, training and manpower development and the administration and enactment of legislation in regard to thermal, hydro power generation, transmission and distribution.

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

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

Act, 1948 (14 of 1948) and the Bhakra Beas Management Board as provided in the Punjab Reorganisation Act, 1966 (31 of 1966);

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

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

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

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

- Access to Electricity - Available for all households in the next five year

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

II. ANALYSIS OF DEMANDS FOR GRANTS (2021-22)

2.1 Article 113 of the Constitution mandates that the estimates of expenditure from the Consolidated Fund of India included in the Annual Financial Statement and required to be voted by the Lok Sabha, be submitted in the form of Demands for Grants. The Demands for Grants are presented to the Lok Sabha along with the Annual Financial Statement. Generally, one Demand for Grant is presented in respect of each Ministry or Department. The Demands for Grants of the Ministry of Power (**Demand No. 78**) was laid on 11 February, 2021.

2.2 The Demands show a budgetary provision of GBS of ₹ 15,322 crore. The Central Plan Outlay, including IEBR, i.e. ₹59,990.52 crore, however, stands at ₹75,312.52 crore. The Scheme-wise Demands for Grants of the Ministry are given as **Annexure-I**.

2.3 The Ministry of Power, however, had sought an outlay of ₹ 30,155.40 crore (GBS component). The details of funds demands by the Ministry of Power and fund allocated by the Ministry of Finance are as follows:

(₹ in crore)

S.No	Name of the scheme	Requirement in BE 2021-22 by M/o Power	Final BE 2021-22 allocation as per Ceiling
1	Energy Conservation	150.00	80.00
2	Payment to SDMC- Badarpur thermal Power Station	16.08	16.08
3	Payment pertaining to International Arbitration case	28.00	28.00
4	Reimbursement of Claim for any expenditure already incurred by NTPC on Lohari Nagpala Hydro Power Projects	150.00	104.40

5	Advance ultra super critical plant in Sipat, Chhattisgarh	0.01	0.01
6	Deen Dayal Upadhyaya Gram Jyoti Yojna	6,850.00	3,600.00
7	Integrated Power Development Scheme (IPDS)	11,337.00	5,300.00
8	Reform Linked Distribution Scheme	0.01	0.01
9	Smart Grid	50.00	40.00
10	Interest Subsidy to National Electricity Fund	720.00	200.00
11	GoI fully service bond- issue expenditure and interest (PFC Bonds)	376.40	376.40
12	GoI fully service bond- issue expenditure and interest (REC Bonds)	2,415.92	2,416.00
13	Support for Flood moderation storage Hydro Electric Projects	0.01	0.01
14	Support for Cost of Enabling Infrastructure i.e., roads/ bridge	0.01	0.01
15	Central assistance for Pakul Dul HEP under J&K PMDP 2015 as grant and loan to Chenab Valley Power Projects Pvt Limited (CVPPPL)	1,195.90	602.53
16	Loan to NHPC	0.00	0.00
17	Tehri Hydro Development Corporation (THDC)	0.00	0.00
18	NEEPCO	0.00	0.00
19	Grant towards cost of Downstream protection work of Subansiri Lower project (NHPC)	75.00	145.00
20	220 KV Transmission Line from Srinagar to Leh via Kargil	0.00	0.00
21	Green Energy Corridor	14.95	14.95
22	Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim	2,412.00	600.00
23	Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	2,400.00	600.00
24	Creation of a Central Transmission Utility (CTU)	30.00	30.00
25	Power System Development Fund (PSDF)	1,066.88	574.16
26	Dispute Resolution Authority	0.01	0.01
27	Manufacturing zones under Atma Nirbhar Bharat Package	0.00	0.01
A	Total Schemes (Central Sector Schemes + Other Central Sector Schemes)	29,288.18	14,727.58

28	Central Power Research Institute, Bengaluru	220.00	180.00
29	National Power Training Institute (NPTI)	88.09	70.00
30	Bureau of Energy Efficiency	300.00	117.82
31	Secretariat	59.56	58.86
32	APTEL	32.08	23.08
33	JERC	13.62	14.00
34	CERC	220.00	220.00
35	Less: met from CERC fund	-220.00	-220.00
36	CEA	153.87	130.66
B	Other than Total Schemes	867.22	594.42
	Total (A + B)	**30,155.40**	**15,322.00**

2.4 The Ministry of Power have informed that apart from BE of ₹15,322 crore for 2021-22, there is a provision for raising Extra Budgetary Resources to the tune of ₹9,300 crore (subject to authorization from the Ministry of Finance) specifically for DDUGJY (₹3,250 crore) and IPDS Scheme (₹6,050 crore) of the Ministry of Power.

2.5 The details of Internal & Extra Budgetary Resources (I&EBR) for the year 2021-22 are given below:

(₹ in crore)

S.No	Name of PSU	I&EBR
1	National Thermal Power Corporation Limited	23,736.00
2	National Hydro Electric Power Corporation Limited	8,057.44
3	Damodar Valley Corporation Limited	2,857.06
4	North Eastern Electric Power Corporation Limited	810.02
5	Satluj Jal Vidyut Nigam Limited	5,000.00
6	Tehri Hydro Development Corporation Limited	2,730.00
7	Power Grid Corporation of India Limited	7,500.00
8	Rural Electrification Corporation	9,300.00
9	Power Finance Corporation	---
Total		**59,990.52**

2.6 The Committee were informed that the internal accruals out of operations (of CPSUs) and borrowings (both domestic and foreign) constitute I&EBR. 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 CPSUs (NHPC, THDC and NEEPCO), that too, on a limited scale. The expenditure under I&EBR is not routed through government budget/demand for grant. It is managed by the Board of the respective PSUs.

2.7 It was further informed that the GBS, on the other hand, is the gross budgetary support/demand for grant provided from out of the Consolidated Fund of India for implementation of various schemes of the Ministry, forming part of the Five Year Plan/Annual Plans. The expenditure under GBS is routed through the Ministry's budget. Further, Extra Budgetary Resources (EBR) is the borrowing raised by the Government entities for the Government Scheme.

2.8 When the Committee sought the views of the Ministry of Power regarding less than the demanded fund allocation to them by the Ministry of Finance, the Secretary Power, deposed before the Committee as under:

> *"The demand is aggregated based on the organisation's requirement. The Ministry of Finance has to see the overall tax position and revenue position. What I am submitting is this. We have a little flexibility that if we require more funds in any year, the Ministry of Finance allows us through EBR which we are able to service in the coming Budget."*

2.9 On being further asked by the Committee that if the provision of EBR is in place, then why the Ministry want to demand more fund allocation, the Secretary Power explained as under:

> *"It is only a balancing tool. We place our demand. The Budget making process is very detailed, and there are always competing demands before the Government as a whole. We always place our demand, and then, the Ministry*

of Finance gives us funds through various mechanisms timely, and we are able to implement our scheme."

2.10 While replying to a specific query of the Committee why only ₹1 lakh been allocated under the head Manufacturing Zones under *Atmanirbhar Bharat* Package for setting up of three manufacturing zones of power and renewable equipment, the Secretary Power deposed before the Committee as under:

"We have not kept any provision for manufacturing zones because this scheme is under formulation. We are in active consultation with NITI Aayog and the Department of Promotion for Industry and Internal Trade. As and when we formulate the scheme and the projects come, the fund requirement will be subsequent one. The Budget line provision means the Government is there."

2.11 On being asked by the Committee as to how Demands for Grants (2021-22) of the Ministry of Power is in accordance with the long term planning for the Power Sector, the Ministry of Power has submitted that the viability of Distribution Companies is a serious concern. The Hon'ble Finance Minister in the Budget Speech on 1st February, 2021 has announced Revamped Reforms based result linked power distribution sector scheme for a total outlay of ₹3,05,984 crore to achieve the long term targets. The objectives of this scheme will be to further strengthen the Sub-transmission and Distribution network, ensure quality power supply to all domestic and industrial customers, reduction in national Average Cost of Supply (ACS)-Average Revenue Realized (ARR) gap to zero by 2024-25.

2.12 When the Committee further desired to know as to how the announcement made by the Hon'ble Finance Minister during Budget announcement 2021-22 regarding providing choice to consumer for selection of power Supply Company by promoting competition, will be operational

particularly without the provision of ‘separation of content and carriage', the Ministry have replied as under:

> *“The Electricity Act, 2003 requires amendments to implement this. Accordingly the draft Electricity Amendment Bill 2021 is under finalization and will be sent for Cabinet approval. After obtaining cabinet approval, it will be sent to the Parliament for legislation.”*

III. ANALYSIS OF PAST FINANCIAL PERFORMANCE OF THE MINISTRY

3.1 The Ministry of Power was allocated ₹15,874.82 for 2020-21. Scheme-wise details of BE, RE and the actual expenditure (upto 31.01.2021) are given below:

(₹ in crore)

S.No	Scheme	BE 2020-21	RE 2020-21	Expenditure Upto 31.01.21	% of BE 2020-21	% of RE 2020-21
1	Secretariat- Economic Services	51.57	50.58	37.33	72.39	**73.80**
2	Central Electricity Authority	130.66	126.27	98.35	75.27	**77.89**
3	Appellate Tribunal For Electricity	17.40	23.08	11.65	66.95	**50.48**
4	Setting up of JERC for UT's & Goa except Delhi	9.65	11.44	7.37	76.37	**64.42**
5	Deen Dayal Upadhyaya Gram Jyoti Yojana	4,500.00	2,000.00	931.71	20.70	**46.59**
6	National Power Training Institute	82.34	25.96	0.00	0.00	**0.00**
7	Central Power Research Institute	200.00	80.00	30.00	15.00	**37.50**
8	Bureau of Energy Efficiency	103.37	56.33	36.00	34.83	**63.91**
9	Integrated Power Development Scheme	5,300.00	4,000.00	2,328.09	43.93	**58.20**
10	Energy Conservation	109.99	36.95	0.02	0.02	**0.05**
11	National Hydro Power Corporation-Loan	84.27	65.31	0.00	0.00	**0.00**
12	Interest Subsidy to National Electricity Fund	200.00	200.00	200.00	100.00	**100.00**
13	Strengthening of Transmission System in Arunachal Pradesh & Sikkim	800.00	300.00	200.00	25.00	**66.67**
14	Power System improvement in North Eastern States excluding Arunachal Pradesh and Sikkim	770.00	281.00	200.00	25.97	**71.17**
15	Green Energy Corridors	33.00	18.67	0.00	0.00	**0.00**

16	Power System Development Fund	574.16	824.16	301.56	52.52	**36.59**
17	Smart Grids	40.00	20.00	8.27	20.68	**41.35**
18	Central Assistance for Pakal Dul HEP under J&K PMDP 2015 Project as grant to Chenab Valley Power	373.65	203.73	160.00	42.82	**78.54**
19	Interest Payment and issuing expenses on the bond (PFC Bonds)	376.40	376.40	243.55	64.71	**64.71**
20	Interest Payment and issuing expenses on the bond (REC Bonds)	1,920.92	1,920.92	1,276.95	66.48	**66.48**
21	Lohari Nagpala-Reimbursement to NTPC	104.40	60.73	0.00	0.00	**0.00**
22	Payment to Law Firm (P&A Associates)	28.00	8.40	0.00	0.00	**0.00**
23	Advance Ultra super critical plant in Sipat, Chhattisgarh	0.01	0.01	0.00	0.00	**0.00**
24	Support for Flood Moderation Storage-Hydro electric projects	0.01	0.01	0.00	0.00	**0.00**
25	Support for cost of enabling infrastructure i.e. roads/bridge	65.00	0.01	0.00	0.00	**0.00**
26	Reform Linked Distribution Scheme	0.01	0.01	0.00	0.00	**0.00**
27	Dispute Resolution Authority	0.01	0.01	0.00	0.00	**0.00**
28	Payment to SDMC-Badarpur Thermal Power Station	0.00	32.15	0.00	0.00	**0.00**
29	Grant towards cost of Down Stream protection work of Subansiri Lower project (NHPC)	0.00	105.00	0.00	0.00	**0.00**
30	Creation of a Central Transmission Utility (CTU)	0.00	8.00	0.00	0.00	**0.00**
	Total	**15,874.82**	**10,835.13**	**6,070.85**	**38.24**	**56.03**

3.2 The details of BE, RE and the actual expenditure for the year 2020-21in respect of DDUGJY and IPDS is given below:

(₹. in crores)

S.N	Scheme	BE 2020-21	Expenditure Upto 31-12-2020	% of BE	Expenditure Upto 27-01-2021	% of BE
Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)						
1	Subsidies	30.00	5.31	17.70	5.31	**17.70**
2	North Eastern Region	267.50	168.04	62.82	168.04	**62.82**
3	Grants for Creation of Capital Assets	2,918.50	102.23	3.50	102.23	**3.50**
4	Other Charges	150.00	26.40	17.60	26.40	**17.60**
5	Tribal Area Sub Plan (Grants for Creation of Capital Assets)	387.00	226.96	58.65	226.96	**58.65**
6	Special Component Plan for Scheduled Caste (GCA)	747.00	402.77	53.92	402.77	**53.92**
Grand Total (DDGUGJY)		**4,500.00**	**931.71**	**20.70**	**931.71**	**20.70**
Integrated Power Development Scheme (IPDS)						
1	Grants-in-aid-General	20.00	19.38	96.90	19.38	**96.90**
2	Grants-in-aid-General (NER)	20.00	0.00	0.00	0.00	**0.00**
3	Grants for Creation of Capital Assets (NER)	120.00	120.00	100.00	120.00	**100.00**
4	Grants for Creation of Capital Assets	2,640.00	1440.87	54.58	1,440.87	**54.58**
5	Loans to PFC for IPDS (NER)	90.00	0.00	0.00	0.00	**0.00**
6	Loans to PFC for IPDS/APDRP	600.00	84.04	14.01	84.04	**14.01**
7	Special Component Plan for Scheduled Castes (Grants for Creation of Capital Assets)	750.00	291.29	38.84	291.29	**38.84**
8	Special Component Plan for Scheduled Castes (Loan)	140.00	20.91	14.94	20.91	**14.94**

9	Tribal Area Sub Plan (TASP component under IPDS)	400.00	98.86	24.72	98.86	**24.72**
10	Tribal Area Sub Plan(Loan)	70.00	3.22	4.60	3.22	**4.60**
11	PMDP 2015 J&K Package (Through Central Agency)	450.00	249.52	55.45	249.52	**55.45**
Total-Integrated Power Development Scheme		**5,300.00**	**2,328.09**	**43.93**	**2,328.09**	**43.93**

3.3 The details of the demand posted by the Ministry of Power and the fund allocated by the Ministry of Finance since the financial year 2018-19, is as under:

Financial Year	Demand posted by Ministry of Power	Fund allocated by the Ministry of Finance
2018-19	36,843.32	15,046.92
2019-20	32,001.11	15,874.82
2020-21	33,366.75	15,874.82
2021-22	30,155.40	15,322.00

3.4 The details BE, RE and the actual utilization during the last three years under Major Heads of the Ministry of Power, are given below:

		2018-19			2019-20			2020-21		
S. N	**Major Head**	**BE**	**RE**	**Actual**	**BE**	**RE**	**Actual**	**BE**	**RE**	**Actual Utilization upto 31.01.2021**
1	**2552-NER**	1340.00	2740.00	2740.00	1572.92	2247.80	2247.80	1977.50	1031.00	688.04
2	**2801-Power (Scheme)**	11452.32	10763.79	10749.50	11853.39	11757.50	11414.08	12763.47	9369.55	5237.31
3	**3451-Sectt.**	43.15	45.40	43.58	48.39	47.40	44.94	51.57	50.58	37.33
	4552- Capital outlay NER	267.45	61.00	61.00	684.00	171.00	0.00	0.00	0.00	0.00
4	**4801-Capital Outlay on Power Projects**	562.00	633.00	633.00	261.48	196.48	182.97	98.01	18.69	0.00
5	**6552-Loans & Advances (NER)**	90.00	90.00	90.00	90.00	90.00	90.00	90.00	25.00	0.00
6	**6801-Loans for Power Projects**	1292.00	1292.00	1259.22	1364.64	1364.64	1342.09	894.27	340.31	108.17
	Total	**15046.92**	**15625.19**	**15576.30**	**15874.82**	**15874.82**	**15321.88**	**15874.82**	**10835.13**	**6070.85**

3.5 Details of year wise budgetary allocation of the Ministry of Power both at BE and RE stages and its actual utilization since the year 2016-17 are given below:

(₹ in crore)

Financial Year	Component	BE	RE	Actual
2016-17	GBS	12,252.71	10,475.95	11,009.37
	EBR	5,000.00	5,000.00	5,000.00
	IEBR	62,683.57	62,069.66	59,094.19
	Total	**79,936.28**	**77,545.61**	**75,103.56**
2017-18	GBS	13,881.14	14,914.93	13,975.00
	EBR	0.00	4,000.00	4,000.00
	IEBR	61,880.92	60,317.69	55,447.01
	Total	**75,762.06**	**79,232.62**	**73,422.01**
2018-19	GBS	15,046.92	15,625.19	15,575.84
	EBR	0.00	20,504.76	19,331.70
	IEBR	53,468.66	52,683.96	54,681.86
	Total	**68,515.58**	**88,813.91**	**89,589.40**
2019-20	GBS	15,874.82	15,874.82	15,321.88
	EBR	9,000.00	8,500.00	3,782.00
	IEBR	42,407.41	43,946.70	58,853.92
	Total	**67,282.23**	**68,321.52**	**77,957.80**
2020-21	GBS	15,874.82	10,835.13	6,070.85 (upto 31.01.2021)
	EBR	5,500.00	5,500.00	2,000.00
	IEBR	44,384.38	44,745.72	28,916.29
	Total	**49,884.38**	**50,245.72**	**36,987.14**

3.6 When the Committee asked for the reasons for the variation between BE, RE and Actual Expenditure, The Ministry, in their written reply, have submitted as under:

"2016-17:

During the year 2016-17 against the allocation of ₹12,252.71 crore in BE, the RE 2016-17 was reduced to ₹10,475.95 crore due to reduced allocation for IPDS and PSDF schemes. The actual expenditure was ₹11,009.37 crore, which was 89.85% of BE and 105.09% of RE.

2017-18:

Against the Budget allocation of ₹13,881.14 crore at BE stage, the RE 2017-18 was enhanced to ₹14,914.93 crore due to launch of Har Ghar Sahaj Bijli Yojana (Saubhagya) Scheme. The actual expenditure was ₹13,975.00 which was 100.68 % of BE and 93.70% of RE. The fund under Prime Minister Development Package (PMDP) could not be utilized due to unspent balance of previous year.

2018-19:

During the year 2018-19 against the allocation of ₹15,046.92 crore in BE, the RE 2018-19 was enhanced to ₹15,625.19 crore due to requirement of funds under NERPSIP and Comprehensive scheme for Strengthening of Transmission System in the States of Arunachal Pradesh & Sikkim. The actual expenditure was ₹15,575.84 which is 103.51 % of BE and 99.68 % of RE. As such there is no short fall in expenditure.

2019-20:

During the year 2019-20, Budget allocation of ₹15,874.82 crore at BE stage was kept at same level at RE stage. The actual expenditure was ₹15,321.88 crore which is 96.52 % of BE and 96.52 % of RE.

2020-21:

During the year 2020-21 against the allocation of ₹15,874.82 crore in BE and ₹10,835.13 crore in RE 2020-21, the actual expenditure is ₹ 6,070.85 crore which is 38.24 % of BE and 56.03% of RE. The remaining fund of ₹4,764.28 crore may be utilized during February/March, 2021."

3.7 The details of the year-wise CapEx targets and achievements since financial year 2018-19 are given below:

Year	Original	Revised	Actual	Actual (% BE)	Actual (% RE)
2018-19	53,469.00	52,684.00	54,682.00	102.27	103.79
2019-20	42,407.00	43,947.00	58,854.00	138.78	133.92
2020-21	44,468.65	44,811.00	31,525.88*	70.89	70.35
2021-22	50,690.52	---	---	---	---

*upto31.01.21

3.8 The details of CPSE-wise CapEx targets and expenditures for the year 2020-21 are given below:

S.No.	CPSE	Original	Revised	Expenditure	Exp (% of RE)
1	**NTPC**	21,000.00	21,000.00	17,422.93	82.97
2	**DVC**	2,342.00	2,342.00	439.80	18.78
3	**PGCIL**	10,500.00	10,500.00	8,510.00	81.05
4	**NHPC**	5,401.29	5,296.00	2,438.87	46.05
5	**SJVNL**	2,880.00	2,880.00	1,143.71	39.71
6	**NEEPCO**	564.36	965.00	361.84	37.50
7	**THDC**	1,781.00	1,828.03	1,208.73	66.12
	Total	**44,468.65**	**44,811.03**	**31,525.88**	**70.35**

3.9 The Ministry of Finance have issued instructions to the effect that expenditure during the financial year be evenly spread through Monthly Expenditure Plan (MEP). The instructions *inter-alia* provide that the expenditure in the last quarter should not be more than 33% of the budget and also not more than 15% during the month of March of a financial year.

3.10 The Ministry have furnished the details of quarter-wise utilization of budget allocations during the last five years which is given below:

(₹ in crore)

FY (Allocation in BE)		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total
2016-17 (12,252.71)	Actuals (₹)	2,583.35	2,984.95	1,566.31	3,770.26	11,009.37
	Percentage	20.91	24.16	12.68	32.21	89.98
2017-18 (13,881.14)	Actuals (₹)	2,676.57	2,323.30	4,151.72	4,823.41	13,975.00
	Percentage	19.28	16.74	29.91	34.75	100.67
2018-19 (15,046.92)	Actuals (₹)	8,038.03	2,096.32	1,942.02	3,499.93	15,576.30
	Percentage	53.42	13.93	12.91	23.26	103.59
2019-20 (15,874.82)	Actuals (₹)	4,451.55	5,737.51	2,606.30	2,526.52	15,321.88
	Percentage	28.04	36.14	16.41	15.91	83.65
2020-21 (15,874.82-BE) (10,835.13-RE)	Actuals (₹)	2,170.00	2,348.94	1,538.32	13.59	6,070.85 (upto 31.01.2021)
	Percentage against RE	20.02	21.68	14.20	0.13	56.03

3.11 When the Committee asked the reasons for deviation in quarterly spending, the Ministry, in their written reply, have stated as under:

> "The significant rise in expenditure during 4th Quarter of 2016-17 is because of accumulation of the releases due under the flagship schemes IPDS, PSDF and DDUGJY during 3rd Quarter. The progress of expenditure/release of scheme funds is depends on various factors such as the time of receipt of proposals for release of funds, availability of utilization certificates which are due for the funds released in the past, position regarding unspent balances at the time of receipt of proposals, completion of the process of appraisal and approval of investment proposals. These have been the major factor for variation in the expenditure across different quarter."

IV. MINISTRY OF POWER SCHEMES (FUNDED THROUGH GBS)

A. Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

4.1 The Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) is the 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.

4.2 The following components have been prescribed under the DDUGJY:

(i) Separation of agriculture and non-agriculture feeders to facilitate Discoms in the judicious rostering of supply to agricultural and uninterrupted quality power supply to non-agricultural consumers.

(ii) Strengthening and Augmentation of Sub Transmission & Distribution infrastructure in rural areas, including metering of Distribution Transformers/feeders/consumers and

(iii) Rural Electrification: The erstwhile Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) scheme which was launched by Government of India in April, 2005 for providing access to electricity to all households has been subsumed under DDUGJY Scheme as RE component. The outlay of RGGVY scheme for the 12th and 13th Plans shall be carried forward under DDUGJY.

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

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

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

4.4 The Ministry informed the Committee that the projects worth ₹44,416 crore have been sanctioned by the Inter-Ministerial Monitoring Committee of DDUGJY. Besides this, additional projects with a total cost of ₹14,270 crore have also been sanctioned for creation of infrastructure to support household electrification under Saubhagya. The Scheme is available till 2021-22. Government of India has released grant of ₹51,457.25 crore since 2014-15 upto 31.12.2021. The year-wise details are as under:

Year	Budget (Rs in Crore)	GOI Grant Released (Rs in Crore)	Raised through EBR	Total Release
2014-15	3,386.38	3,374.41	-	3,374.41
2015-16	4,500.00	4,500.00	-	4,500.00
2016-17	3,000.00	2,965.87	5,000.00	7,965.87

2017-18	5,400.00	5,049.96	4,000.00	9,049.96
2018-19	3,800.00	3,799.79	12,627.00	16,426.79
2019-20	4,066.00	3,926.21	3,282.30	7,208.51
2020- 21	4,500.00	931.71	2,000.00	2,931.71*
TOTAL	**28,652.38**	**24,547.95**	**26,909.30**	**51,457.25**

* as on 31.01.2021

4.5 When the Committee asked for cumulative as well as yearly targets regarding the other two components of DDUGJY namely, separation of agriculture and non-agriculture feeders and Strengthening and augmentation of sub-transmission & distribution infrastructure. The Ministry, in their written reply, have submitted as under:

> "No cumulative as well as yearly targets have been assigned for 'Separation of agriculture and non-agriculture feeders' and 'Strengthening and augmentation of sub-transmission & distribution infrastructure' components of DDUGJY. However, Government of India is impressing upon states for completion of all the components of DDUGJY, including separation of agriculture and non-agriculture feeders, strengthening and augmentation of sub-transmission & distribution infrastructure before the schedule time. The DDUGJY scheme is available till 2021-22."

B. Integrated Power Development Scheme (IPDS)

4.6 Integrated Power Development Scheme (IPDS) was approved by Government of India as a central sector scheme for implementation during XII and XIII Plan to extend financial assistance against capital expenditure for addressing the gaps in sub transmission & distribution network and metering in

urban areas to supplement the resources of DISCOMs/Power Departments. The scheme was notified by Ministry of Power *vide* OM dated December 03, 2014. The scheme has a sunset timeline of 2021-22. The major components envisaged under the scheme include:

- Strengthening of sub-transmission and distribution networks in the urban areas
- Metering of distribution transformers / feeders / consumers in the urban areas
- Schemes for Enterprise Resource Planning (ERP) and IT enablement of balance urban towns
- Smart metering solution for performing UDAY States
- Gas Insulated Switchgear (GIS) substations at locations where space constraint exists
- Real Time-Data Acquisition System (RT-DAS)
- Carrying forward of R-APDRP scheme to IPDS: IT enablement of distribution sector and strengthening of distribution network under R-APDRP for 12th and 13th plans by carrying forward the approved outlay for R-APDRP to IPDS.

4.7 The components covered under IPDS have an estimated outlay of ₹ 32,612 crore including a budgetary support of ₹ 25,354 crore from Government of India during the entire implementation period. The funding mechanism is proposed as under:

Agency	**Nature of support**	**Quantum of support (Percentage of project cost)**	
		Other than Special Category States	**Special Category States #**
Govt. of India	Grant	60	85
Discom Contribution	Own Fund	10	5
Lender (FIs/ Banks)	Loan	30	10

Additional Grant from GOI on achievement of prescribed milestones	Grant	50% of total loan component (30%) i.e. 15%	50% of total loan component (10%) i.e. 5%
Maximum Grant by GOI (including additional grant on achievement of prescribed milestones)	Grant	75%	90%

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

4.8 The overall status of BE, RE and the funds released under IPDS (including R-APDRP) during last 5 years is given below:

(₹ in crore)

Year	BE	RE	Fund released by MoP
2016-17	5,500.00	4,524.01	4,366.28
2017-18	5,821.22	4,372.00	3,810.99
2018-19	3,985.00	3,750.00	3,679.81
2019-20	5,280.45	5,662.72	5,560.13
2020-21	5,300.00	4,000.00	2,328.09*
2021-22	5,300.00	-	-

* till 31.01.2021

4.9 When the committee enquired about the target and achievements under the scheme, the Ministry, in their written reply, have submitted as under:

> "IPDS Scheme per se doesn't envisage any targets. The scheme has an objective which is to extend financial assistance against capital expenditure for addressing the gaps in sub transmission & distribution network and metering in urban areas to supplement the resources of DISCOMs/Power Departments.
>
> At present, about 92% of the physical works have been completed under the Scheme and remaining works are nearing completion or under process of financial closure. All efforts are being undertaken viz. regular follow up through Monitoring Committee Meeting,

interaction with State Govt./Utilities to ensure timely completion of projects.

Present sunset date of IPDS is March, 2022. Further, as per the indications given by Budget Section, MoP as against the proposed budgetary allocation of ₹11,337 Cr. It is expected that a sum of ₹5,300 crore only would be available as BE 2021-22."

4.10 On being asked, the Ministry have stated that AT&C loss of one per cent amounts to approximately ₹6,959 crore. As per the information available, the overall AT&C losses in the country amount to 22.03% in FY 2018-19. Thus, the overall monetary value of AT&C losses in the power sector is ₹1,53,307 crore.

4.11 When the Committee desired to know why we are still targeting for 15% of AT&C losses, whereas, the aim of other countries is around 3-4%, the Secretary Power deposed before the Committee as under:

"*In the Indian circumstances because of our long distribution lines and historically long LT lines as respect to HT lines, certain technical losses are unavoidable. For urban areas, they are in the range of 3 to 4 per cent; for rural areas, my sense is, around 8 to 9 per cent are technical losses which are there; and others are the commercial losses under billing efficiency and collection efficiency.*

If you look at the AT&C losses of the efficient private players in Delhi, they are in the range of 8 to 9 per cent. Similarly, if we see the licensees in Ahmedabad and Surat, they are also in the range of, I believe, 6 to 7 per cent. So, we have to reach there. That will be almost close to the global scenario. But loss reduction is relatively a time taking process, as has been proved in Delhi. They were more than 50 per cent in 2002, and in 2020, they were around 8 to 9 per cent. So, it is a long process.

So, keeping in view the present circumstances and our infrastructure, this target of 12 to 15 per cent in the next three years is, I feel, quite aggressive and ambitious. Once you reach the target of 15 per cent, reduction of even 1 per cent is very capital intensive because you have to do a lot of underground cabling, transformers have to be taken closer to the consumers' premises, etc."

V. STATUTORY/AUTONOMOUS BODIES

A. Bureau of Energy Efficiency (BEE)

5.1 Bureau of Energy Efficiency (BEE) is the nodal central statutory body to assist the Government in implementing the provisions of the Energy Conservation Act. As a quasi-regulatory and policy advisory body, the Bureau helps in developing policies and strategies that emphasize self-regulation and market principles to achieve the primary objective of reducing the energy intensity of the Indian Economy. The Energy Conservation Act also empowers the State Government to facilitate and enforce the efficient use of energy through their respective State Designated Agencies (SDAs) in consultation with BEE. It also empowers the Central Government to specify energy performance standards.

5.2 The Ministry have apprised the Committee that India stands at the forefront of addressing global challenge of climate change and has committed to an ambitious Nationally Determined Contributions (NDCs) of reducing emission intensity by 33-35% in 2030 against the levels of year 2005. In its Second Biennial Update Report (BUR 2) submitted to United Nations Framework Convention on Climate Change (UNFCCC) in 2018, it has been highlighted that India has proactively pursued mitigation and adaptation activities and achieved a reduction in emission intensity of GDP by 21% over the period 2005-2014.

5.3 The details of yearly budgetary allocation and its actual utilization for BEE (during the last five years) along with reason for deviation, as furnished by the Ministry, are given below:

(₹ In crore)

Schemes	BE	RE	Actual Utilization					Reason for deviation
			Q1	Q2	Q3	Q4	Total	
2016-17								1. The XII Plan proposed schemes got delayed due to changes suggested by then Planning Commission. 2. BEE originally, proposed 9 Schemes under 2 major Account head, which was clubbed to 5 schemes as per the instruction of then Planning Commission. 3. The schemes were approved in middle of the Plan period which was the main reason for less utilization.
BEE Schemes	63.29	60.04	-	54.15	-	-	54.15	
Ongoing EAP Scheme under "BEE" head	0.71	0.59	-	-	-	0.59	0.59	
Energy Conservation Schemes	100.00	50.62	23.70	-	-	-	23.70	
Total	**164.00**	**111.25**	**23.70**	**54.15**	**-**	**0.59**	**78.44**	
Utilization in Percentage w.r.t RE			21%	49%	0%	1%	71%	
2017-18								1. The SFC approval got delayed as the Niti Ayog instructed BEE to further club all proposed 5 schemes to 2 i.e. per Account head 1 scheme. 2. Both schemes were approved in 2018 and 2019 respectively. 3. BEE utilized the allocated Budget
BEE Schemes	49.00	27.00	-	-	27.00	-	27.00	
Ongoing EAP Scheme under "BEE" head	1.00	-	-	-	-	-	-	
Energy Conservation Schemes	50.54	50.00	-	36.99	-	-	36.99	
Total	**100.54**	**77.00**	**-**	**36.99**	**27.00**	**-**	**63.99**	
Utilization in Percentage w.r.t RE			0%	48%	35%	0%	83%	

2018-19							
BEE Schemes	100.16	10.49	-	-	-	10.49	10.49
Ongoing EAP Scheme under "BEE" head	3.21	3.21	-	3.21	-	-	3.21
Energy Conservation Schemes	55.00	27.00	-	15.00	-	11.49	26.49
Total	**158.37**	**40.70**	**-**	**18.21**	**-**	**21.98**	**40.19**
Utilization in Percentage w.r.t RE			0%	45%	0%	54%	99%
2019-20							
BEE Schemes	100.16	100.16	23.69	14.70	30.47	31.30	100.16
Ongoing EAP Scheme under "BEE" head	3.21	3.21	-	0.50	-	-	0.50
Energy Conservation Schemes	110.00	110.00	-	13.51	62.50	20.00	96.01
Total	**213.37**	**213.37**	**23.69**	**28.71**	**92.97**	**51.30**	**196.67**
Utilization in Percentage w.r.t RE			11%	13%	44%	24%	92%
2020-21 (Scheme extended upto 31.03.2021)							
BEE Schemes	100.16	56.32	15.00	21.00	-	-	36.00
Ongoing EAP Scheme under "BEE" head	3.21	0.01	-	-	-	-	-
Energy Conservation Schemes	109.99	36.95	-	-	-	0.02	0.02
Total	**213.36**	**93.28**	**15.00**	**21.00**	**-**	**-**	**36.02**

Estimate/Revised Estimate since, the schemes were ongoing in nature.

4. BEE completed all those activities, which were not dependent on funds but were contributing for the energy conservation in the country.

Utilization in Percentage w.r.t RE			16%	23%	0%	0%	39%	

5.4 It was stated that BEE could utilize the funds allocated and it was sufficient to carry out activities. However, BEE also carried out those activities, which were not dependent on funds but were contributing for the energy conservation in the country. Further, in regard to the budgetary allocation of ₹93.28 crore (at RE stage) for the FY 2020-21, BEE has drawn ₹36.00 crore and sanction order for ₹20.00 crore has already issued and it's in under process in Ministry for release. The balance will be drawn during the year.

5.5 When the Committee desired to know about the main achievement of BEE, the Ministry in their written reply have furnished the following details:

"Achievements of Energy Efficiency Scheme / Programmes as on 31st January, 2021

- ✓ Electrical energy savings of 147 Billion Units, worth ₹72,440 Crores and resulted in reduction of 121.1 Million tonne of CO2 emissions
- ✓ Thermal energy savings of 12.00 Million Tonnes of oil Equivalent, worth ₹ 22,083 Crores and resulted in reduction of 39.91 Million tonne of CO2 emission.
- ✓ Total energy savings of 24.58 Million Tonnes of oil Equivalent i.e. 2.71% of total primary energy supply of the country
- ✓ Total cost savings worth ₹94,523 crores approximately which is equivalent to reduction in CO2 emission of around 161 Million Tonnes
- ✓ Total CO2 reduction including LED bulbs sold by private industry is 280 Million Tonnes."

5.6 When the Committee desired to know the constraints that BEE are facing in achievements of its objectives, the Ministry in their written reply have stated as under:

"Like any other scheme, Bureau has faced many issues and challenges in the ongoing activities. While it has resolved some of them learning from the past experience and developing solutions to address them, some major challenges are still predominant in the energy efficiency sectors which are as follows:

A. **State Designated Agencies (SDA)**
   Except for some SDAs which have a separate and exclusive State Designated Agency (SDA), in all other states mostly the renewable development agencies, electrical inspectorate or the DISCOMs have been given the additional responsibility of functioning as the SDA.
B. **Implementation through ESCO route**
   Implementation of Energy Efficiency projects through ESCO route is one of the tried and tested mechanisms to achieve scalability in many parts of the world. However, this mechanism has not seen much success in India.
C. **Capacity Building and Awareness of end users**
   Stepping up the efforts being made towards training and capacity building as well as experience and knowledge exchange across various stakeholder groups.
D. **Energy Efficiency Financing**
   Energy Service Companies (ESCOs) are facing shortage of adequate funds thereby stalling the projects on ESCO mode and restricting their adequate institutionalization.
E. **Awareness among Financial Institutions**
   ESCOs and Industries lack adequate understanding of project financial appraisal concepts.
F. **Enforcement and Monitoring Reporting & Verification (MRV)**
   The system needs to be made robust in terms of the quality of reporting. Strict enforcement of the provisions under EC Act is one of the most crucial factors hindering the progress in energy efficiency."

5.7 The Bureau of Energy Efficiency (BEE) has been mandated to undertake an awareness drive for promoting Public Charging, e-mobility & its ecosystem.

To implement the 'Go Electric' campaign at National and State level, BEE will extend technical support to the State Designated Agencies (SDAs). When the Committee was desirous to know about the new programme jointly launched by the Ministry of Power and Ministry of Road Transport and Highways, the Secretary Power informed the Committee as under:

> "The underlying rationale for this campaign is that we have to generate awareness amongst the citizens and consumers to increase use of electricity in their lifestyle and simultaneously, also make the electricity greener. That is the mission that our dependence on the imported fuel will come down. We are importing a large amount of crude oil for use in our vehicles and also LPG for cooking. So, it is an ambitious campaign to increase penetration of electric vehicles and electric cooking so that our energy security is enhanced and our emissions are reduced.

5.8 While replying to a specific query of the Committee as to what exactly will be done under this campaign, the Secretary Power stated as under:

> "There are five main elements. One is strong media dissemination through social media, digital media and also distribution of pamphlets. The other major component is the workshops with the RWAs and other users. The fifth one is the demonstrative pilot projects which will be taken up. These are the main five elements."

B. Central Power Research Institute (CPRI)

5.9 Central Power Research Institute (CPRI) was established by the Government of India in 1960. It became an Autonomous Society in the year 1978 under the aegis of the Ministry of Power, Government of India. Central Power Research Institute (CPRI) with its Head Office in Bangalore has Units at Bhopal, Hyderabad, Nagpur, Noida, and Kolkata.

5.10 The followings have been stated to be the core activities of CPRI:

- Applied Research in electrical power engineering
- Testing & Certification of Power equipment
- Consultancy and Field testing services to Power Utilities and Industries
- Third Party Inspection and Vendor Analysis
- Organizing Customized Training programs for Utilities and Industries

5.11 The details of budgetary allocation and actual expenditure of CPRI are as under:

(₹ in crore)

Financial Year	BE	RE	Actual
2016-17	125.00	65.79	65.79
2017-18	150.00	50.36	50.35
2018-19	150.00	94.34	94.34
2019-20	200.00	200.00	178.00
2020-21	200.00	80.00	30.00
2021-22	180.00	-	-

5.12 When the Committee asked whether the funds allocated to CPRI was sufficient, the Ministry have submitted as under:

> "The fund allocated was sufficient. However, CPRI is being envisaged as a nodal centre and fund allocation on a sizeable scale will be required as per directions of Hon'ble MOSP(IC) where upgradation of existing facilities as well as addition of those testing facilities will be created, so that these efforts will help in addressing the gaps and will also reduce turnaround time for the Power Utilities & Industry."

5.13 In regard to less utilization of allocated fund by CPRI, the Ministry have furnished the following information:

"**2016-17:**

During the year 2016-17 against the allocation of ₹125 crore in BE, the RE 2016-17 was reduced to ₹65.79 crore due to delay in execution of the civil works for EMI/EMC Laboratory, Solar Photovoltaic & Inverter Test Laboratory. It may also be noted that there was substantial difference in estimated cost for civil works made by CPWD (₹28.00 Cr. for Augmentation & New Facilities Project) and the value of order (₹12.15 Cr.) finally placed. Appointment of Global Consultant (CESI-Italy) for major project components costing ₹509.00 crore, ₹120.00 crore, ₹15.00crore and ₹11.05 crore got delayed and hence could not be utilized as planned.

2017-18:

During the year 2017-18 against the allocation of ₹150 crore in BE, the RE 2017-18 was reduced to ₹50.36 crore due to delay in finalization of specifications for major projects components costing ₹509.00 crore, ₹120.00 crore, and ₹15.00 crore by CESI-Italy.

2018-19:

During the year 2018-19 against the allocation of ₹150 crore in BE, the RE 2018-19 was reduced to ₹94.34 crore as Rs 100 Cr was estimated to be spent in the project titled 'Augmentation of High Power Short Circuit test facilities by installation of two additional 2500 MVA Short Circuit Generators", but the same was delayed because of delay in finalizing the vendor due to the specialised nature of the equipment and limited vendors worldwide resulting in BE-RE deviation.

2019-20:

No deviation was there in the Financial Year. BE and RE being ₹200 crore.

2020-21:

BE of ₹200 crore was arrived considering the expenditure towards package 2 for the project “Establishment of 350 MVA Online short circuit facility at UHVRL Hyderabad”.

Package 2 comprising of the equipment for establishment of 350 MVA Online short circuit facility was floated and when the price bid for Package 2 was opened, it was found that the offer proposed by only bidder was

₹360 crore against the estimated cost of ₹120 crore. This is three times higher than the estimated cost and hence it was decided to short close the project by taking necessary approvals from MoP."

5.14 When the Committee desired to know how CPRI can be made more effective, the Ministry, in their written reply has submitted as under:

"Government shall help CPRI in acceptance of its test certificate globally, in funding for all the upcoming capital projects to augment its test facilities and in allotting land for establishment of new units for expansion of Research and Test facilities. In this regard, as per direction of Hon'ble MOSP(IC), gaps in the Testing infrastructure is getting addressed suitably, so as to reduce the turnaround times for the Power Utilities and Industry and to effectuate this vision CPRI has drawn up a road map in various areas viz. Cyber Security, Metering, Power Systems, High Voltage etc., synthetic test facility in High Power Laboratory etc."

C. National Power Training Institute (NPTI)

5.15 National Power Training Institute (NPTI) is a National Apex body for fulfilling the training requirements of the power sector in the country formed by Gazette notification of Government of India dated 03.07.1993. It serves as a National Certification Authority for the purpose of Certification of competence to ensure availability of properly trained personnel.

5.16 NPTI has been appointed as the Certifying Authority for SYSTEM OPERATORS of NLDC, RLDCs, and SLDCs. Also, NPTI functions as an Apex Cadre Training Institute for Engineers/Officers of Central Power Engineering Service (Ministry of Power, Govt. of. India). It operates through the following Eleven (11) Institutes in the different power zones of the country on an all India basis.

5.17 The following is the details of the budgetary allocation for NPTI and its actual utilization during the last five years:

(₹ in crore)

Year	BE	RE	Actual Expenditure
2016-17	40.40	40.40	40.40
2017-18	57.20	57.20	57.20
2018-19	100.55	100.55	100.55
2019-20	69.00	50.00	28.90
2020-21	82.34	25.96	-
2021-22	70.00	-	-

5.18 In regard to poor utilization of fund by NPTI in 2019-20 and 2020-21, the Ministry has submitted as under:

> "An amount of ₹50.00 crore was provided at RE stage in the financial year 2019-20, whereas ₹ 28.9071 crore was sanctioned & utilized. An amount of ₹25.96 crore has been sanctioned at RE stage for FY 2020-21 whereas, fund, so far released by Ministry of Power, is nil."

5.19 When the Committee pointed out less than the previous year's budgetary allocation for NPTI and emphasized the need to augment the capacity of NPTI, the Secretary Power deposed before the Committee as under:

> *"On capacity building, the NPTI is conducting a lot of courses. The Government has started a programme called 'Karam Yogi' in which all the functionaries, more at the cutting-edge level, will be given training. We are working with the States. We are working with the States and there is a distinct component of capacity building in the new scheme also. It is very important. We will keep on trying about this."*

5.20 While enumerating constraints that NPTI is facing in achievement of its objective, it was submitted that the DISCOMS are not able to send their employees for training because of financial crunch.

5.21 On being desirous of knowing the expectation of the NPTI from the Government, it was replied as under:

> "NPTI needs funding support to run the Institutes on self-sustainable basis through clear-cut policy and guidelines given by Ministry of Power. Training infrastructure created at NPTI is required to be upgraded in view of evolving training requirements and changes in technology and also increased focus on renewable energy sources. Therefore, NPTI needs financial support to cater to Indian Power Sector requirements which are dynamically changing with technology integration.
>
> According to the National Electricity Plan January 2018 it was proposed that instead of creating new infrastructure, all NPTI institutes along with two upcoming institutes one each in Kerala and Madhya Pradesh will be fully utilized to accommodate the training load.
>
> The two new Institutes of NPTI have started functioning however; they are not in a position to generate enough revenue from their training activities, as the training activities of new institutes generally take time to be operationalized at optimal capacity. Therefore, there is a need to provide the revenue grant at least for a period of three years for meeting the revenue deficit of the newly started institutes.
>
> NPTI has been entrusted with the role and responsibility as a National Apex Body for training by the Government of India (Gazette Notification July 3, 1993) and it runs the training programmes for the power sector personnel as mandated in the Regulations 6 & 7 of CEA Regulations 2010. NPTI's expertise in the training should be utilised by all Utilities / Industries of Power Sector to meet their mandatory requirement of Induction training to their new entrants as well as

refresher training to their existing personnel which would, apart from meeting their training requirement, ensure effective utilisation of the huge infrastructure available with the NPTI.

Power sector training in the areas of Smart Distribution, Smart Transmission and Smart Generation may also be strengthened in coordination with NPTI in order to accommodate emerging areas. This will help prepare competent man power for upcoming Renewable Installations of 175 GW in Solar, Wind, Small Hydro, etc.

In compliance with the National Training Policy (NTP) of Ministry of Power, all organizations need to allocate training budget at least equal to 5% of the salary budget exclusively for funding training activities."

VI. DEVELOPMENT OF POWER SECTOR

National Smart Grid Mission (NSGM)

6.1 Government of India launched 'National Smart Grid Mission (NSGM)' in March 2015 for planning, monitoring and implementing policies & programs related to Smart Grid in India. Ministry of Power *vide* letter no. 27/3/2017-APDRP, dated 7th May, 2018 sanctioned continuation of NSGM up to 2020 with a total outlay of ₹990 crore including budgetary support of ₹312 crore from Government of India. The Ministry of Power has informed that they are taking up the matter regarding continuation of NSGM beyond March 2020.

6.2 The details of sanctioned Expenditure Outlay and GBS of NSGM from April, 2017 to March, 2020 are as under:

(₹ in crore)

	Activity	**Outlay**	**Budgetary Support**	**2017-18**	**2018-19**	**2019-20**
A	Development of 10 Smart Grid Projects (incl. 4 Ongoing Projects)	938	281 (30% of project cost as grant)	63	136	82
B	Development of Micro Grids in Medium Sized Pockets	30	9 (30% of project cost as grant)	2	3	4
C	Training and Capacity Building including Funding to SGKC and Consumer Engagement etc.	7	7 (100% cost as grant)	1	3	3
D	NSGM Establishment and O&M etc.	15	15(100% cost as grant)	3	5	7
	Total	**990**	**312**	**69**	**147**	**96**

6.3 In regard to issue in implementation of the Smart Grid in the Country, the Ministry has enumerated the followings challenges:

"High capital cost of smart grid technologies/equipment and non availability of funds with the utilities

- Non-compatibility of old equipment with the new IT enabled technologies as most of these cannot be retrofitted for compatibility with smart grid technologies.
- Non-Availability of dedicated communications system /network with the distribution utilities
- The lack of dedicated IT personnel in the distribution utilities for adoption of new technologies
- Lack of consumer awareness for adoption of new smart grid technologies.
- Increased cyber security risks"

Smart Meters

6.4 It was submitted by the Ministry that while the conventional electricity meters measure the power consumption of a home or business, smart meters can record energy usage in near real time/15-minute intervals (configurable) and transmit data to the utilities constantly. Most importantly, smart meters enable two-way communication with the utility and the home/business and facilitate online energy audit etc. Smart meters can also help consumers monitor and regulate their consumption so they can save money on power bills.

6.5 When the Committee desired to know why the work related to the installation of Smart Meters in the entire country cannot be undertaken in a time-bound mission mode, as done in case of village electrification and providing electricity connections to households, the Secretary, Ministry of Power responded as under:

"We have a mission of completing this smart metering in the next three years. We have also given a window that it can be extended by two years for State-specific reasons to be decided by the State Regulatory Commission. It is a very ambitious programme. EESL BOT experience has been fairly successful but we need to have more players if we have to do this aggressive programme in three years The Ministry has published a Standard Bidding Document and we intend to invite private players also in the installation of the smart meter.

A new scheme has been announced in the Budget and its one of the main focus is the smart metering, which will be given on the TOTEX (Total Expenditure) Model. In this model, some part will be given upfront as CAPEX and then the OPEX part. The new scheme stipulates funds upto 15 per cent to the States for installation of smart metering. Balance part will come as a service per meter per month.

As you have said, smart metering results in loss reduction and we have been seeing in several States, the gain to the utility in terms of the per consumer per month on an average basis exceeds the rental of the smart meter to be paid per month. This programme has been designed in a manner that the investment will be serviced by the savings. Consumers will not be burdened, and the Ministry will support initial CAPEX because that is required for the comfort of the investors. We have designed it very carefully."

6.6 During the discussion, the Committee raised the issue related to the incident of August 2020 when it was reported that 1.5 lakh homes connections with smart meters were disconnected due to sabotage or cyber-attacks in the State of Uttar Pradesh and desired to know whether that incident was properly investigated to find out the actual reason. The Secretary, Ministry of Power informed the Committee as under:

"*About the smart meters, I am informed as to what happened in August 2020 in Lucknow and some other towns of UP. The Energy Efficiency Services Limited has investigated this incident and found that the disconnection was being done from HES (Head End System). It has been moved to the MDM, which is the better practice. So far, they have not come to any conclusion of cyber security or of any sabotage. It is a*

learning. Whenever you introduce a new technology, there are always some learning. It is a very ambitious and a very useful programme. EESL has been asked to take corrective actions so that this is does not happen in future."

National Electricity Policy

6.7 The Committee during the discussion pointed out that the present National Electricity Policy (NEP) was formulated in the year 2005 and now it has become irrelevant due to rapid changes in the power sector of the country. When the Committee desired to know whether it will not be appropriate to formulate a new policy keeping in mind the changed scenario, the Secretary, Ministry of Power, deposed before the Committee as under:

"I think you are absolutely right. The Ministry is considering amendment to this policy to make it more relevant to the present circumstances. We are in the process."

***

Part – II

Observations/ Recommendations of the Committee

Budgetary Allocation

1. The Committee note that the Ministry of Power have been allocated ₹15,322 crore though they had projected a demand of ₹30,155 crore. The scrutiny of the Demands for Grants of the Ministry of Power for the previous years has revealed that the Ministry has constantly been allocated funds less than 50% of their original demands. The Ministry had posted a demand of ₹ 33,366 crore in 2020-21 and got only ₹ 15,874 crore. Similarly, in 2019-20 and 2018-19, the Ministry had projected budgetary requirements of ₹ 32,001 crore and ₹ 36,843 crore but had been allocated only ₹ 15,874 crore and ₹ 15,046 crore respectively. The Committee also find that the track record of the Ministry of Power as far as utilization of funds is concerned in the previous three years *viz*. 2019-20, 2018-19 and 2017-18 has been satisfactory as whatever fund had been allocated, the Ministry was able to fully utilize it. For the fiscal 2020-21, the Ministry have assigned Nationwide Lockdown from April 2020 in wake of COVID-19 pandemic as a reason for the slow pace of utilization of fund.

In the considered view of the Committee, the past performance of the Ministry of Power merits enhancement of their budgetary provisions as their programmes are vital for the development of Power Sector which will not only lead to significant improvement in the reliable supply of electricity and its access to all but also result in financial saving for the Government in the long run. The Committee, are therefore, inclined to recommend that the budgetary allocation for the Ministry of Power may be

suitably enhanced, if so warranted, so that the important programmes of the Ministry are implemented in a timely manner. Keeping in view the fact that the two flagship schemes of the Ministry of Power namely, IPDS and DDUGJY are nearing their expiry in about a year's time, it is necessary that the Ministry of Power should first strive to utilize the allocated funds at the earliest so that they have sufficient justification to post additional demands at the stage of Revise Estimates, which needless to emphasize should be underpinned by a coherent and time-bound schematic plan. The Committee also believe that it's time for the Ministry to now come out with a clear cut road map and a coherent strategy for the power sector as a whole, factoring the global energy scenario.

2. The Committee note that apart from BE of ₹15,322 crore for 2021-22, there is a provision for raising Extra Budgetary Resources (EBR) to the tune of ₹9,300 crore specifically for DDUGJY (₹3,250 crore) and IPDS Scheme (₹6,050 crore), which is to be authorized by the Ministry of Finance. The Committee feel that as the provision of EBR would help in meeting the financial requirements of these two important schemes to a great extent, authorization may be obtained at the earliest. The Committee also desire that the Ministry of Power should make diligent and vigorous efforts to fully utilize the proposed EBR.

Deen Dayal Upadhaya Gram Jyoti Yojana (DDUGJY)

3. The Committee note that budgetary provision for the year 2020-21 was ₹4,500 crore while the actual utilization was only ₹931 crore (upto

31.01.2021). During the period, an additional amount to the tune of ₹2,000 crore was also raised through EBR and utilized. The Committee do understand that due to the nationwide lockdown, the fund utilization could not be of a level as approved in the BE. Nonetheless, the Committee is also aware that DDUGJY scheme is available till fiscal 2021-22 only. Therefore, the Committee are of the view that all the works envisaged under the scheme should be completed before the end of fiscal 2021-22 by making up for the lost time during the COVID – 19 pandemic. The Committee, therefore, desire that the Ministry should pro-actively try not only to fully utilize the allocated funds but also to further accelerate the pace of implementation of the scheme, so that additional funds at the stage of RE, if required, can be demanded by them with ample justification.

4. The Committee note that apart from rural electrification, there are two other components of DDUGJY namely, separation of agriculture and non-agriculture feeders and Strengthening and augmentation of sub-transmission & distribution infrastructure. When the Committee asked for cumulative as well as yearly targets for these two components, they were surprised to find out that no cumulative, as well as yearly targets, have been assigned for them. However, the Committee were informed that the Government of India is impressing upon States for completion of all the components of DDUGJY, including separation of agriculture and non-agriculture feeders, strengthening and augmentation of sub-transmission & distribution infrastructure before the scheduled time. The Committee find it difficult to comprehend as to how the Ministry have been fixing

annual budgetary provisions and monitoring the scheme in the absence of any physical targets. The Committee, therefore, recommend that the Ministry should make an objective and fair assessment of the quantum of work that still needs to be done under the scheme. The Committee also desire that all the envisaged works under the scheme should be completed before its sunset in fiscal 2021-22.

Integrated Power Development Scheme (IPDS)

5. The Committee note that Integrated Power Development Scheme (IPDS) is a central sector scheme which *inter-alia* envisages to strengthen sub-transmission and distribution networks in the urban areas, metering of distribution transformers / feeders / consumers in the urban areas and establishment of Real Time-Data Acquisition System (RT-DAS). The Committee observe that the work being undertaken would help in the reduction of AT&C losses in the country which are still high as compared to other countries. The Committee have been apprised that the Government is aiming to bring down AT&C losses to the level of 15%. The Committee also note that AT&C loss of one per cent amounts to approximately ₹6,959 crore. AT&C loss in the country was as high as 22.03% in FY 2018-19 which accounted for overall monetary value of AT&C losses in the power sector to the tune of ₹1,53,307 crore. The Committee feel that these figures are unsustainably high and necessitate the need to bring down AT&C losses urgently. The Committee, therefore, recommend that structured efforts

should be made to reduce AT&C losses even below the level of 15% to match international thresholds.

6. The Committee note that a provision of ₹5,300 crore which is equal to the previous year's BE, has been made for IPDS for the year 2021-22. The Committee further note that the fund allocation during the last five years under the scheme has been hovering around ₹5,500 crore. Since the sunset timeline of IPDS is fiscal 2021-22, the Committee hope that the Ministry will keep a constant watch over flow of expenditure and progress of the works so that the budgetary allocation does not constrain completion of all pending works under this scheme within the stipulated time and, if required, the Ministry may also request for additional allocation of funds at RE stage.

<u>Grants for creation of Capital Assets</u>

7. The Committee observe that under the head "Grants for creation of Capital Assets", ₹2,980.50 crore were allocated under Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY) and ₹2,640.00 crore under Integrated Power Development Scheme(IPDS) for the financial year 2020-21. However, the expenditure upto 27.01.2021 had been ₹102.23 crore and ₹1,440.87 crore respectively under the scheme which is substantially less than the allocations made for the year and in all likelihood huge unspent balances will be registered under this head by the close of the financial year. Taking into account the fact that capital assets are fundamental requirements for infrastructure development and also such

assets give long term base for further growth of the economy, the Committee would recommend that the Ministry should streamline implementation at ground level and execute their projects in a time-bound manner with close monitoring so that the allocated funds on such important head are not left unutilized.

Allocation of funds for Tribal Area Sub-plan and Special Component Plan for Scheduled Castes

8. The Committee observe that for the financial year 2020-21, allocations for Tribal Area Sub-plan and Special Component Plan for Scheduled Castes under the Deen Dayal Upadhyay Gram Jyoti Yojana had been ₹387.00 crore and ₹747.00 crore. Similarly, under the Integrated Power Development Scheme, ₹400.00 crore under Tribal Area Sub-plan and ₹750.00 crore under Special Component Plan for Scheduled Castes had been allocated. In addition, ₹140.00 crore and ₹70.00 crore were allocated as loan under Special Component Plan for Scheduled Castes and Tribal Area Sub-plan for the financial year 2020-21. The analysis of the allocation of funds thus reveals that the aggregate allocation for SC and ST component under both the above schemes comes to ₹2,494.00 crore which is about 15.71% of the total budgetary allocation of ₹1,5874.82 crore of the Ministry of Power for the financial year 2020-21. The Committee are however concerned to note that the aggregate expenditure upto 27.01.2021 on all the above schemes under SC and ST components had been only ₹1,044.01 crore. The Committee feel that allocations under SC and ST components are made with a view to provide electricity to the SC

and ST communities in a mission mode so that the underprivileged sections of the society are provided with basic facilities to enable them to uplift their life standard and therefore, the Committee are of the view that not only full utilization of the allocated funds under these components need to be ensured but at the same time, it is also to be closely monitored that the intended objectives of such allocations of funds have been achieved. The Committee would therefore recommend the Ministry to have effective monitoring by way of collection of data from the field formations and respective Departments to undertake the cost-benefit analysis of the scheme and also to find out as to whether the objectives of such allocations have been achieved.

Bureau of Energy Efficiency (BEE)

9. The Committee note that our country is committed to an ambitious Nationally Determined Contributions (NDCs) of reducing emission intensity by 33-35% in 2030 against the levels of year 2005. The Committee also note that the Bureau of Energy Efficiency (BEE) is the nodal central statutory body to assist the Government in implementing the provisions of the Electricity Conservation Act. The Committee further note that there have been electrical energy savings of 147 Billion Units and a total cost savings worth ₹94,523 crores approximately, which is equivalent to the reduction in CO2 emission of around 161 Million Tonnes due to the Energy Efficiency Scheme/Programmes being run by the BEE. The Committee is also aware that the BEE have been assigned the task of implementing 'Go-electric' campaign – an initiative which promotes the usage of electricity to decrease our dependency on the imported fuel.

The Committee note that the BEE has been allocated ₹117 crore for 2021-22 which is slightly more than their previous year's allocation of ₹100 crore. Considering the importance of Energy Efficiency and Conservation programmes, the Committee have been emphasizing the need for expansion and intensification of energy efficiency programmes. For better utilization of budgeted funds for energy efficiency, the Committee would recommend the following:

(i) With increased budgetary allocation, BEE should augment its managerial and operational capacity to fully utilize the funds as they have not been able to fully utilize the allocated funds in the past.

(ii) The Ministry should provide all the necessary assistance to the BEE especially in persuading States to have a separate and exclusive State Designated Agency (SDA) for addressing the issues related to Energy Efficiency Financing and Energy Conservation Schemes.

Central Power Research Institute (CPRI)

10. The Committee note that a budgetary provision of ₹180 crore has been made for Central Power Research Institute (CPRI) for 2021-22. The Committee also note that for 2020-21 and 2019-20 there were provisions of ₹200 crore for each year. The Committee note that budgetary utilizations for 2020-21 and 2019-20 were ₹178 crore and ₹30 crore respectively. The Committee are aware of the compelling need for augmentation and intensification of Research and Development work specially related to Energy Storage, Integration of Renewable Energy into the Grid, Solar PV system, Cyber Security of the Power Sector, Waste to Energy, etc. which can make the Power Sector more efficient and less dependent on import. In view of this, the Committee strongly feel that

there is a need to augment the R&D activities in the power sector in the country. However, the Committee also find that the performance of CPRI during the last five years, in regard to utilization of allocated funds, has been lacklustre. The Committee, therefore, recommend that every effort should be made to expand their base of Research and Development so that allocated funds are optimally utilized and the country gets the advantage of the latest technological developments in the energy sector.

National Power Training Institute (NPTI)

11. The Committee note that the performance of NPTI in regard to utilization of allocated funds for the year 2016-17, 2017-18 and 2018-19 has been satisfactory in as much as they were able to fully utilize the funds. However, their performance during the last two years i.e. 2019-20 and 2020-21 has not been up to the mark. In 2019-20 they could utilize only ₹28 crore against the provision of ₹69 crore, whereas, in 2020-21 their utilization so far is nil, with the budgetary provision at ₹82 crore. They further note that for 2021-22, NPTI has been allocated a reduced amount of₹70 crore.

Despite the increased need for training in the Power Sector due to various reforms, rapid technological advancements and creation of large infrastructure, the Committee are surprised to note the decreasing trend of budgetary utilization by NPTI, especially in recent years. The Committee, during the examination of the Demands for Grants of the Ministry of Power for the preceding two years, have been emphasizing the need for augmentation of training facilities and increase in budgetary

provisions in this regard. However, the Committee feel that NPTI must first strive to fully utilize the allocated funds purposefully so that training needs of power sector do not suffer on this count.

Smart Grid

12. The Committee note that for Smart Grids, an allocation of ₹40 crore only has been made for 2021-22. For the fiscal 2020-21 also, it was ₹40 crore, which was revised downward to ₹20 crore. However, Actual Expenditures for 2019-2020, 2018-19, 2017-18 have been as low as ₹ 6.10 crore, ₹ 7.13 crore, and ₹3.07 crore respectively. The Committee are, therefore, not happy with the financial performance under this head. Keeping in view the importance of this scheme, the Committee would, therefore, recommend that optimum fund utilization for Smart Grids must be ensured by the Ministry to enable timely completion of this project.

Smart Meters

13. The Committee note that that Smart Meters have various advantages over the conventional electricity meters. Smart meters can record energy usage in near real time/15-minute intervals (configurable) and transmit data to the utilities constantly. Most importantly, smart meters enable two-way communication with the utility and the home/business and facilitate online energy audit etc. Smart meters can also help consumers monitor and regulate their consumption so they can save money on power bills. Due to these advantages, the Committee have been supportive of installation of Smart Meters all over the country expeditiously. The Committee are happy to note that the Ministry is also endeavoring to

complete Smart Metering in the next three years with a window that it can be extended by two years for State-specific reasons to be decided by the State Regulatory Commission. The Committee believe that Smart Metering would not only increase the billing collection of DISCOMs but also empower the end consumers to manage their spending on electricity. It seems to be a 'Win-Win' situation for both the parties. The Committee, therefore, recommend that the Ministry should take Smart Metering drive in a time-bound mission mode as done in case of village electrification and providing electricity connection to households.

The Committee are however surprised to note that for Smart Metering, no fund has been allocated for the financial year 2021-22. In the last financial year, there was a token allocation of ₹10 lakh only. The Committee, desire that the work related to Smart Metering should be taken more seriously and expedited, and sufficient funds be allocated for the same to enable this consumer–friendly scheme to really take off.

14. The Committee note with concern the reply of the Ministry in regard to the actual reason for the incident of disconnection of 1.5 lakh home connections with smart meters during August 2020 in Uttar Pradesh. The Committee was informed during evidence that the Energy Efficiency Services Limited had investigated this incident and the disconnection was being done from HES (Head End System) and it has been moved to the MDM which is better practice. It was further stated that so far, they have not come to any conclusion relating to cyber security aspect or of any sabotage and EESL has been asked to take corrective actions. Since the country has decided to go ahead with the Smart Grid and Smart Metering

technologies in a big way, the Committee are of the view that such issues could wreak havoc in the energy sector, if we are not prepared with a foolproof plan to timely avert them. As the Committee believe that the matter of cyber security of the Power System is very critical, they would recommend that the Ministry must take this issue more seriously and formulate effective and adequate safeguards in this regard.

National Electricity Policy

15. The Committee note that the present National Electricity Policy was adopted in the year 2005. It aims at achieving the objectives such as access to electricity and availability for all households, power - demand to be fully met, per capita availability of electricity to be increased to over 1000, etc. The Committee observe that as most of the enunciated objectives of the National Electricity Policy, 2005 have already been achieved, it no more reflects the aspirations, challenges and dynamics of the fast-changing electricity sector. The Committee, therefore, strongly feel that there is a need for the formulation of a new National Electricity Policy. During his deposition, the Secretary, Ministry of Power agreed to the proposal and apprised the Committee that the Ministry is considering amendments to this policy. However, the Committee would like to recommend that instead of making piecemeal amendments in the present National Electricity Policy, an altogether new Policy be freshly formulated according to the requirements of the changing power sector scenario, so that it can serve as a beacon light for the power sector as a whole and lay a coherent trajectory for its future growth and development.

Electricity Amendment Bill

16. The Committee note that the Government is intending for reduction in national Average Cost of Supply (ACS)-Average Revenue Realized (ARR) gap to zero by 2024-25. The Committee have been apprised that to provide a choice to the consumer for selection of power supply company by promoting competition and to deal with other issues, draft Electricity Amendment Bill 2021 is under finalization and will be sent for Cabinet approval. The Committee welcome the endeavour of the Government, and are of the belief that it is a step in the right direction. However, they desire that diligent efforts be made to bridge ACS-ARR gap by bringing greater efficiency in the system and significantly reducing AT&C losses so that the need to raise tariff does not arise in the usual course.

17. The Committee further desire that while amending the Electricity Act to provide choice to the consumer for selection of power Supply Company by promoting competition, the apprehensions and the issues flagged by the Committee in this regard in their 4thReport(16th Lok Sabha) on Electricity Amendment Bill, 2014, maybe addressed and taken into consideration.

New Delhi;
02 March, 2021
Phalguna 11, 1942 (Saka)

Rajiv Ranjan Singh *alias* Lalan Singh
Chairperson,
Standing Committee on Energy

MINISTRY OF POWER

DEMAND NO. 78

Ministry of Power

(In ₹ crores)

		Actual 2019-2020			Budget 2020-2021			Revised 2020-2021			Budget 2021-2022		
		Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
Gross		18642.59	2492.51	21135.10	19833.20	2048.08	21881.28	14194.13	449.80	14643.93	17727.03	3180.77	20907.80
Recoveries		*-4935.77*	*-877.45*	*-5813.22*	*-5040.66*	*-965.80*	*-6006.46*	*-3743.00*	*-65.80*	*-3808.80*	*-3970.00*	*-1615.80*	*-5585.80*
Receipts		...	...	...	...	...	...	...	...	...	...	...	...
Net		**13706.82**	**1615.06**	**15321.88**	**14792.54**	**1082.28**	**15874.82**	**10451.13**	**384.00**	**10835.13**	**13757.03**	**1564.97**	**15322.00**
A. The Budget allocations, net of recoveries, are given below:													
CENTRE'S EXPENDITURE													
Establishment Expenditure of the Centre													
1. Secretariat		44.94	...	44.94	51.57	...	51.57	50.58	...	50.58	58.86	...	58.86
		...	...	...	...	...	...	...	...	...	...	...	...
	Net	*44.94*	...	*44.94*	*51.57*	...	*51.57*	*50.58*	...	*50.58*	*58.86*	...	*58.86*
2. Statutory Authorities													
2.01 Central Electricity Authority		116.61	...	116.61	130.66	...	130.66	126.27	...	126.27	130.66	...	130.66
2.02 Setting up of Joint Electricity Regulatory Commission (JERC) for UTs and Goa		8.66	...	8.66	9.65	...	9.65	11.44	...	11.44	14.00	...	14.00
2.03 Appellate Tribunal for Electricity		15.31	...	15.31	17.40	...	17.40	23.08	...	23.08	23.08	...	23.08
2.04 Central Electricity Regulatory Commission (CERC) Fund		...	...	...	66.50	...	66.50	220.00	...	220.00	220.00	...	220.00
2.05 Less- Amount met from CERC Fund		...	...	...	-66.50	...	-66.50	-220.00	...	-220.00	-220.00	...	-220.00
	Net	*140.58*	...	*140.58*	*157.71*	...	*157.71*	*160.79*	...	*160.79*	*167.74*	...	*167.74*
Total-Establishment Expenditure of the Centre		**185.52**	**...**	**185.52**	**209.28**	**...**	**209.28**	**211.37**	**...**	**211.37**	**226.60**	**...**	**226.60**
Central Sector Schemes/Projects													
Conservation and Energy Efficiency													
3. Energy Conservation Schemes													
3.01 Energy Conservation		96.03	...	96.03	109.99	...	109.99	36.95	...	36.95	80.00	...	80.00
Deen Dayal Upadhyaya Gram Jyoti Yojna													
4. Deen Dayal Upadhyaya Gram Jyoti Yojna		3926.21	...	3926.21	4500.00	...	4500.00	2000.00	...	2000.00	3600.00	...	3600.00
Integrated Power Development Scheme													
5. Integrated Power Development Scheme													
5.01 Transfer to Central Road and Infrastructure		4380.45	877.45	5257.90	4400.00	900.00	5300.00	3523.00	...	3523.00	3750.00	1550.00	5300.00

(In ₹ crores)

		Actual 2019-2020			Budget 2020-2021			Revised 2020-2021			Budget 2021-2022		
		Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
	Fund (CRIF)												
5.02	IPDS-Grant	4682.68	...	4682.68	4400.00	...	4400.00	3700.00	...	3700.00	3750.00	...	3750.00
5.03	IPDS-Loans	...	877.45	877.45	...	900.00	900.00	...	300.00	300.00	...	1550.00	1550.00
5.04	Less- Amount Met from Central Road and Infrastructure Fund (CRIF)	-4380.45	-877.45	-5257.90	-4400.00	-900.00	-5300.00	-3523.00	...	-3523.00	-3750.00	-1550.00	-5300.00
	Net	*4682.68*	*877.45*	*5560.13*	*4400.00*	*900.00*	*5300.00*	*3700.00*	*300.00*	*4000.00*	*3750.00*	*1550.00*	*5300.00*
Strengthening of Power Systems													
6.	*Strengthening of Power Systems*												
6.01	Smart Grids	6.10	...	6.10	40.00	...	40.00	20.00	...	20.00	40.00	...	40.00
6.02	Green Energy Corridors	...	1.50	1.50	...	33.00	33.00	...	18.67	18.67	...	14.95	14.95
6.03	Interest Subsidy to National Electricity Fund	75.00	...	75.00	200.00	...	200.00	200.00	...	200.00	200.00	...	200.00
6.04	220 kV Transmission line from Srinagar to Leh via Kargil	...	160.47	160.47	...	...	...	...	...	...	...	...	...
6.05	Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim (Program Component)	430.00	...	430.00	430.00	...	430.00	81.00	...	81.00	335.00	...	335.00
6.06	Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim (EAP Component)	340.00	...	340.00	340.00	...	340.00	200.00	...	200.00	265.00	...	265.00
6.07	Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	800.00	...	800.00	800.00	...	800.00	300.00	...	300.00	600.00	...	600.00
6.08	Actual recovery	...	...	...	...	...	...	...	...	...	...	...	...
	Net	*1651.10*	*161.97*	*1813.07*	*1810.00*	*33.00*	*1843.00*	*801.00*	*18.67*	*819.67*	*1440.00*	*14.95*	*1454.95*
Power System Development Fund													
7.	*Power System Development Fund*												
7.01	Transfer to Power System Development Fund (PSDF)	555.32	...	555.32	574.16	...	574.16	824.16	...	824.16	574.16	...	574.16
7.02	Scheme for Power System Development	103.47	...	103.47	121.48	...	121.48	371.48	...	371.48	121.54	...	121.54
7.03	Utilisation of Gas based Generation Capacity	...	...	...	...	...	...	...	...	...	...	...	...
7.04	Payment of interest for loan	451.85	...	451.85	452.68	...	452.68	452.68	...	452.68	452.62	...	452.62
7.05	Less-Amount met from Power System Development Fund	-555.32	...	-555.32	-574.16	...	-574.16	-824.16	...	-824.16	-574.16	...	-574.16
	Net	*555.32*	*...*	*555.32*	*574.16*	*...*	*574.16*	*824.16*	*...*	*824.16*	*574.16*	*...*	*574.16*
8.	Reform Linked Distribution Scheme	...	...	...	0.01	...	0.01	0.01	...	0.01	0.01	...	0.01
Total-Central Sector Schemes/Projects		**10911.34**	**1039.42**	**11950.76**	**11394.16**	**933.00**	**12327.16**	**7362.12**	**318.67**	**7680.79**	**9444.17**	**1564.95**	**11009.12**
Other Central Sector Expenditure													
Autonomous Bodies													
9.	*Training and Research*												
9.01	Central Power Research Institute	178.00	...	178.00	200.00	...	200.00	80.00	...	80.00	180.00	...	180.00
9.02	National Power Training Institute	28.91	...	28.91	82.34	...	82.34	25.96	...	25.96	70.00	...	70.00
	Total- Training and Research	*206.91*	*...*	*206.91*	*282.34*	*...*	*282.34*	*105.96*	*...*	*105.96*	*250.00*	*...*	*250.00*

(In ₹ crores)

	Actual 2019-2020			Budget 2020-2021			Revised 2020-2021			Budget 2021-2022		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
10. Conservation and Energy Efficiency												
10.01 Bureau of Energy Efficiency (Program Component)	100.16	...	100.16	100.16	...	100.16	56.32	...	56.32	115.82	...	115.82
10.02 Bureau of Energy Efficiency (EAP Component)	0.50	...	0.50	3.21	...	3.21	0.01	...	0.01	2.00	...	2.00
Total- Conservation and Energy Efficiency	*100.66*	*...*	*100.66*	*103.37*	*...*	*103.37*	*56.33*	*...*	*56.33*	*117.82*	*...*	*117.82*
Total-Autonomous Bodies	**307.57**	**...**	**307.57**	**385.71**	**...**	**385.71**	**162.29**	**...**	**162.29**	**367.82**	**...**	**367.82**
Public Sector Undertakings												
11. Assistance to CPSUs												
11.01 National Hydro Electric Power Corporation Ltd	...	554.64	554.64	...	84.27	84.27	...	65.31	65.31	...	...	...
11.02 Tehri Development Corporation (THDC)	...	21.00	21.00	...	...	...	...	...	...	...	...	...
11.03 Central Assistance for Pakul Dul HEP under J and K PMDP 2015 as grant to Chenab Valley Power Projects Private Limited (CVPPPL)	322.85	...	322.85	373.65	...	373.65	203.73	...	203.73	602.53	...	602.53
11.04 GoI fully serviced bond issue expenditure and interest (PFC bonds)	376.39	...	376.39	376.40	...	376.40	376.40	...	376.40	376.40	...	376.40
11.05 GoI fully serviced bond issue expenditure and interest (REC Bonds)	1504.82	...	1504.82	1920.92	...	1920.92	1920.92	...	1920.92	2416.00	...	2416.00
11.06 Reimbursement of Claim for any expenditure already incurred by NTPC on Lohari Nagpala Hydro Power	...	...	...	104.40	...	104.40	60.73	...	60.73	104.40	...	104.40
11.07 Grant towards cost of downstream protection work of Subansiri Lower Project (NHPC)	...	...	...	...	...	...	105.00	...	105.00	145.00	...	145.00
Total- Assistance to CPSUs	*2204.06*	*575.64*	*2779.70*	*2775.37*	*84.27*	*2859.64*	*2666.78*	*65.31*	*2732.09*	*3644.33*	*...*	*3644.33*
12. Acquistion of Coal bearing areas for NTPC												
12.01 Acquisition of coal bearing areas	...	...	...	...	65.80	65.80	...	65.80	65.80	...	65.80	65.80
12.02 Less Recoveries	...	...	...	...	-65.80	-65.80	...	-65.80	-65.80	...	-65.80	-65.80
Net	...	...	...	...	...	...	...	...	...	...	...	...
Total-Public Sector Undertakings	**2204.06**	**575.64**	**2779.70**	**2775.37**	**84.27**	**2859.64**	**2666.78**	**65.31**	**2732.09**	**3644.33**	**...**	**3644.33**
Others												
13. Advance Ultra Super Critical plant in Sipat, Chattisgarh	...	...	...	0.01	...	0.01	0.01	...	0.01	0.01	...	0.01
14. Payment to Law firm P and A Law associates in KOWEPO case	0.50	...	0.50	28.00	...	28.00	8.40	...	8.40	...	...	...
15. Payment to SDMC- Badarpur Thermal Power Station	97.83	...	97.83	...	...	...	32.15	...	32.15	16.08	...	16.08
16. Support for cost of enabling infrastructure i.e Roads/ Bridge etc	...	...	...	...	65.00	65.00	...	0.01	0.01	...	0.01	0.01
17. Support for flood moderation storage- Hydro electric projects	...	...	...	...	0.01	0.01	...	0.01	0.01	...	0.01	0.01
18. Dispute Resolution Authority	...	...	...	0.01	...	0.01	0.01	...	0.01	0.01	...	0.01
19. Creation of a Central Transmission Utility (CTU)	...	...	...	...	...	...	8.00	...	8.00	30.00	...	30.00
20. Payment Pertaining to International Arbitration Case	...	...	...	...	...	...	...	...	...	28.00	...	28.00
21. Manufacturing Zones under Atmanirbhar Bharat Package	...	...	...	...	...	...	...	...	...	0.01	...	0.01

(In ₹ crores)

	Actual 2019-2020			Budget 2020-2021			Revised 2020-2021			Budget 2021-2022		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
Total-Others	**98.33**	**...**	**98.33**	**28.02**	**65.01**	**93.03**	**48.57**	**0.02**	**48.59**	**74.11**	**0.02**	**74.13**
Total-Other Central Sector Expenditure	**2609.96**	**575.64**	**3185.60**	**3189.10**	**149.28**	**3338.38**	**2877.64**	**65.33**	**2942.97**	**4086.26**	**0.02**	**4086.28**
Grand Total	***13706.82***	***1615.06***	***15321.88***	***14792.54***	***1082.28***	***15874.82***	***10451.13***	***384.00***	***10835.13***	***13757.03***	***1564.97***	***15322.00***
B. Developmental Heads												
Economic Services												
1. Power	13661.88	...	13661.88	12763.47	...	12763.47	9369.55	...	9369.55	11925.67	...	11925.67
2. Secretariat-Economic Services	44.94	...	44.94	51.57	...	51.57	50.58	...	50.58	58.86	...	58.86
3. Capital Outlay on Power Projects	...	182.97	182.97	...	98.01	98.01	...	18.69	18.69	...	14.97	14.97
4. Loans for Power Projects	...	1432.09	1432.09	...	894.27	894.27	...	340.31	340.31	...	1430.00	1430.00
Total-Economic Services	**13706.82**	**1615.06**	**15321.88**	**12815.04**	**992.28**	**13807.32**	**9420.13**	**359.00**	**9779.13**	**11984.53**	**1444.97**	**13429.50**
Others												
5. North Eastern Areas	...	...	...	1977.50	...	1977.50	1031.00	...	1031.00	1772.50	...	1772.50
6. Loans for North Eastern Areas	...	...	...	...	90.00	90.00	...	25.00	25.00	...	120.00	120.00
Total-Others	**...**	**...**	**...**	**1977.50**	**90.00**	**2067.50**	**1031.00**	**25.00**	**1056.00**	**1772.50**	**120.00**	**1892.50**
Grand Total	**13706.82**	**1615.06**	**15321.88**	**14792.54**	**1082.28**	**15874.82**	**10451.13**	**384.00**	**10835.13**	**13757.03**	**1564.97**	**15322.00**

	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total
C. Investment in Public Enterprises												
1. National Thermal Power Corporation Limited	...	36618.48	36618.48	...	21000.00	21000.00	...	21000.00	21000.00	...	23736.00	23736.00
2. National Hydro Electric Power Corporation Limited	554.64	2534.92	3089.56	84.27	5317.02	5401.29	65.31	5230.69	5296.00	...	8057.44	8057.44
3. Damodar Valley Corporation Limited	...	683.80	683.80	...	2342.00	2342.00	...	2342.00	2342.00	...	2857.06	2857.06
4. North Eastern Electric Power Corporation Limited	...	980.49	980.49	...	564.36	564.36	...	965.00	965.00	...	810.02	810.02
5. Satluj Jal Vidyut Nigam Limited	...	1250.04	1250.04	...	2880.00	2880.00	...	2880.00	2880.00	...	5000.00	5000.00
6. Tehri Hydro Development Corporation Limited	...	1473.19	1473.19	...	1781.00	1781.00	...	1828.03	1828.03	...	2730.00	2730.00
7. Power Grid Corporation of India Limited	...	15313.00	15313.00	...	10500.00	10500.00	...	10500.00	10500.00	...	7500.00	7500.00
8. Rural Electrification Corporation	...	3782.00	3782.00	...	5500.00	5500.00	...	5500.00	5500.00	...	9300.00	9300.00

	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total
9. Power Finance Corporation	...	...	...	...	...	...	...	...	...	...	...	...
Total	**554.64**	**62635.92**	**63190.56**	**84.27**	**49884.38**	**49968.65**	**65.31**	**50245.72**	**50311.03**	**...**	**59990.52**	**59990.52**

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

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

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

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

2.04. **Central Electricity Regulatory Commission (CERC) Fund:** CERC is a statutory body constituted under the provision of the erstwhile Electricity Regulatory Commissions Act, 1998 and continued under Electricity Act, 2003 (which has since repealed inter alia the ERC Act, 1998). The main functions of the CERC are to regulate the tariff of generating companies owned or controlled by the Central Government, to regulate the tariff of generating companies other than those owned or controlled by the Central Government, if such generating companies enter into or otherwise have a composite scheme for generation and sale of electricity in more than one State, to regulate the inter-State transmission of energy including tariff of the transmission utilities, to grant licences for inter-State transmission and trading and to advise the Central Government in formulation of National Electricity Policy and Tariff Policy.

3.01. **Energy Conservation:** The funds would be utilized for (i) carrying out awareness creation on Energy Conservation through print, electronic and other media for general public, (ii) Continuation of EC awards and painting competition on Energy Conservation, (iii) implementation of the National Mission for Enhanced Energy Efficiency (NMEEE) and (iv) the upscaling of the efforts to create and sustain market for energy efficiency to unlock investments. (v) Shields and certificates are given by MoP to generating stations, transmission and distribution utilities and rural distribution franchise for recognising meritorious performance in operation, project management and environmental protection.

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

5. **Integrated 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-transmisison and distribution system in urban areas, metering & IT enablement in distribution sector under ongoing Restructured-Accelarated Power Development Reform Programme (R-APDRP) scheme, which has been subsumed under Integrated Power Development Scheme (IPDS). R-APDRP has two major components: Part-A includes projects for establishment of information technology-based energy accounting and audit system leading to finalization of verifiable base-line AT&C loss levels in the project areas; Part-B envisages distribution network strengthening investments leading to reduction in loss level. The scheme has both Grant and loan components.

5.01. **Transfer to Central Road and Infrastructure Fund (CRIF):** The amount under the scheme is met from Central Road and Infrastructure Fund (CRIF).

5.02. **IPDS-Grant:** Grant is given to the utilities through the Nodal Agency for carrying out the activities under the Scheme within a specified time frame.

5.03. **IPDS-Loans:** Loan has been given to the utilities for carrying out the activities through the Nodal Agency, which will be converted into grant after successful completion of the programme.

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

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

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

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

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

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

8. **Reform Linked Distribution Scheme:** A scheme for Distribution sub sector as mix of Results and Reforms based financial support with an objective of ensuring 24 . 7 sustainable Power for all, and a financially viable Distribution Sector. The scheme envisages support to DISCOMs in case of adoption of Reform packages including Public Private Ownership of Distribution Companies , Adoption of various franchisee models at Distribution level including multiple supply franchisees .

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

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

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

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

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

11.05. **GoI fully serviced bond issue expenditure and interest (REC Bonds):** Interest payment on account of EBR of Rs 4000 cr raised during FY 2017-18 and Rs 15000 crore to raised during FY 2018-19 for DDUGJY & Saubhagaya (Rural).

11.06. **Reimbursement of Claim for any expenditure already incurred by NTPC on Lohari Nagpala Hydro Power:** The scheme is for distribution of award in respect of Lohari Nag Pala Hydro Power Project.

11.07. **Grant towards cost of downstream protection work of Subansiri Lower Project (NHPC):** Expenditure on Downstream protection work of Subansiri Lower project (NHPC). As per decision taken in the meeting in NITI Aayog held on 24.09.2019, the cost of downstream protection work of Subansiri Lower project is to be borne by the Government of India.

12. **Acquistion of Coal bearing areas for NTPC:** The allocation is budget neutral as met through recoveries from NTPC on acquisition of Coal bearing areas for NTPC.

13. **Advance Ultra Super Critical plant in Sipat, Chattisgarh:** Setting up of technology demonstration project at Sipat, Chattisgarh.

15. **Payment to SDMC- Badarpur Thermal Power Station:** Payment to South Delhi Municipal Corporation on account of Land Lease in respect of Badarpur Thermal Power Station.

16. **Support for cost of enabling infrastructure i.e Roads/ Bridge etc:** Allocation for developing enabling infrastructure such as Roads, Bridges etc at site of Hydro Project.

17. **Support for flood moderation storage- Hydro electric projects:** Allocation for support for Flood moderation storage at Hydro electric projects.

18. **Dispute Resolution Authority:** Allocation is for Dispute Resolution Authority that has been envisaged for adjudication of disputes involving generating companies or transmission licensee and to refer any dispute for arbitration, as per Section 79(1)(f) of the Electricity Act, 2003

19. **Creation of a Central Transmission Utility (CTU):** Review the progress in separation of CTU from powergrid, it was decided that necessary action may be taken for creation of the separate CTU company. The same is under consideration of the Committee regarding Establishment Expenditure (CEE) for formation of CTU Ltd as a separate GoI company.

20. **Payment Pertaining to International Arbitration Case:** Payment to Law firm under the India Korea CEPA and India Korea BIT for defending case and dispute on behalf of GoI.

21. **Manufacturing Zones under Atmanirbhar Bharat Package:** This scheme is for setting up of 3 manufacturing Zones for Power and Renewable equipment to be set up in 3 different States. The manufacturing facilities in the zones shall be based on cutting edge, clean and energy efficient technology for minimizing dependency on import of equipment, critical components, basic raw material, critical spares etc. required for Power sector and renewable.

Annexure-II

MINUTES OF THE FIFTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2020-21) HELD ON 22nd FEBRUARY, 2021 IN COMMITTEE ROOM 'D', PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee met from 1130hrs. to 1300hrs.

PRESENT

LOK SABHA

Shri Rajiv Ranjan Singh *alias* Lalan Singh- Chairperson

2. Shri Gurjeet Singh Aujla
3. Shri Harish Dwivedi
4. Shri Kishan Kapoor
5. Shri Ramesh Chander Kaushik
6. Shri Praveen Kumar Nishad
7. Smt. Anupriya Patel
8. Shri Jai Prakash
9. Shri Shivkumar Chanabasappa Udasi

RAJYA SABHA

10. Shri Ajit Kumar Bhuyan
11. Shri Jugalsinh Mathurji Lokhandwala
12. Dr. Sudhanshu Trivedi

SECRETARIAT

1. Shri R.C. Tiwari - Joint Secretary
2. Shri R.K. Suryanarayanan - Director
3. Shri Kulmohan Singh Arora - Additional Director

LIST OF WITNESS

Ministry of Power

No.	Name	Designation
1.	Shri Alok Kumar	Secretary
2.	Shri Ashish Upadhyaya	Additional Secretary
3.	Shri S.K.G. Rahate	Additional Secretary
4.	Shri Vivek Kumar Dewangan	Additional Secretary
5.	Shri Raj Pal	Senior Adviser
6.	Shri Mritunjay Kr. Narayan	Joint Secretary
7.	Shri Tanmay Kumar	Joint Secretary
8.	Shri Ghanshyam Prasad	Joint Secretary
9.	Shri Pradeep Kumar Berwah	Chief Controller of Accounts

Public Sector Undertaking/ Autonomous Bodies/ Statutory Bodies

10.	Shri Prakash S. Mhaske	Chairperson, CEA
11.	Shri Gurdeep Singh	Chairman & Managing Director, NTPC
12.	Shri Abhay Kumar Singh	Chairman & Managing Director, NHPC
13.	Shri K. Sreekant	Chairman & Managing Director, PGCIL
14.	Shri Ravinder Singh Dhillon	Chairman & Managing Director, PFC
15.	Shri Sanjay Malhotra	Chairman & Managing Director, REC
16.	Shri D.V. Singh	Chairman & Managing Director, THDC
17.	Shri Nand Lal Sharma	Chairman & Managing Director, SJVNL
18.	Shri KVS Baba	Chairman & Managing Director, POSOCO
19.	Shri Vinod Kumar Singh	Chairman & Managing Director, NEEPCO
20.	Shri Ram Naresh Singh	Chairman, DVC
21.	Shri Sanjay Srivastava	Chairman, BBMB
22.	Shri Abhay Bakre	Director General, BEE
23.	Shri V.S. Nandakumar	Director General, CPRI

2. At the outset, the Chairman welcomed the Members and the representatives of the Ministry of Power to the sitting of the Committee and apprised them of the agenda i.e. examination of the Demands for Grants of the Ministry of Power for the year 2021-22, focus area for the discussion and the provisions of Directions 55(1) and 58 of the Directions by the Speaker.

3. Thereafter, the Ministry of Power made a PowerPoint presentation on the subject which *inter-alia* included overview of the Ministry of Power, major achievement and initiative taken, Budget allocation for 2021-22. Thereafter, the Members of the Committee *inter-alia* deliberated upon the following points with the representatives of the Ministry of Power:

i) Budgetary allocation – utilization of funds during the previous years, financial provisions for 2021-22, Gross Budgetary Support (GBS) and Extra Budgetary Resources (EBR).

ii) Implementation of DDUGJY – need for expeditious execution of other components of the DDUGJY i.e. strengthening of distribution network and feeder segregation, requirement of fund and budgetary provisions made for these schemes.

iii) Indian Power Development Scheme – funds provided under the scheme, need to expedite the scheme to contain high AT&C losses.

iv) R&D and Training – fund allocation and utilization, need to augment the budgetary provisions, achievements and work being done under the various research and development programmes, need for trained manpower and augmentation of training facilities.

v) Energy Efficiency and Conservation – budgetary allocation and its utilization, need for expansion/intensification of these programmes.

vi) Smart Grid and Smart Meters – need for expeditious execution of work, cyber security of Power System.

vii) National Electricity Policy, 2005 – need for formulation of a new Electricity Policy.

viii) Providing choice to consumers for selection of power Supply Company – need for amendments in the Electricity Act.

ix) Revamped Reforms based result linked power distribution sector scheme.

4. The Members also sought clarifications on various issues relating to Demands and the representatives of the Ministry replied to most of the questions. The Committee directed the representatives of the Ministry to furnish the written replies to the queries which could not be responded within 7 days positively.

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

The Committee then adjourned.

Annexure-III

MINUTES OF THE SEVENTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2020-21) HELD ON 2nd MARCH, 2021 IN COMMITTEE ROOM 'D', PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee met from 1200 hrs. to 1235 hrs.

LOK SABHA

Shri Rajiv Ranjan Singh alias Lalan Singh - Chairperson

2. Shri Chandra Sekhar Bellana
3. Shri Harish Dwivedi
4. Shri Kishan Kapoor
5. Shri Ramesh Chander Kaushik
6. Shri Praveen Kumar Nishad
7. Smt. Anupriya Patel
8. Shri Jai Prakash
9. Shri Dipsinh Shankarsinh Rathod
10. Shri Shivkumar Chanabasappa Udasi
11. Shri P. Velusamy

RAJYA SABHA

12. Shri Muzibulla Khan
13. Dr. Sudhanshu Trivedi

SECRETARIAT

1. Shri R.C. Tiwari - Joint Secretary
2. Shri R.K. Suryanarayanan - Director
3. Shri Kumohan Singh Arora - Additional Director

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

a) Demands for Grants (2021-22) of the Ministry of New and Renewable Energy.
b) Demands for Grants (2021-22) of the Ministry of Power.

3. After discussing the contents of the Reports, the Committee adopted the aforementioned draft Reports without any amendment/modification. The Committee also authorized the Chairperson to finalize the above-mentioned Reports and present the same to both the Houses of Parliament in the second part of the current Budget Session starting from March 08, 2021.

The Committee then adjourned.